

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/18/96 <b>End Date</b> 11/18/96		<b>Boring ID</b> SA-SB-36	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022416	100		6": Black, fine SAND, with Silt, moist, loose, organic, root fragments, riprap; 17": Strong brown, fine SAND, some Silt, moist, loose	0
	1022417	100		As Above	0
4	1022418	100		As Above	0
	1022419 1022420	100		Pale brown, medium SAND, some fine Sand, little coarse Sand, trace fine Gravel, wet, loose	1.0 1.5
8	1022421	50		As Above	0
	1022422	50		As Above	0
12	1022423	50		As Above	0.5
	1022424	50		3": As Above; 3": Strong brown, medium SAND, some fine Sand, little coarse Sand; trace Silt, wet, loose	0.0
16				Bottom of Boring at 15.0'	
20					
24					

RCRA RECORDS CENTER  
 CITY PRATT & WHITNEY  
 NO. MAN ST  
 ID. NO. CTD990672081  
 FILE LOC. R-9  
RDMS # 1128

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-36



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/18/96 <b>End Date</b> 11/18/96	<b>Boring ID</b> <b>SA-SB-37</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1022425	100		Black, fine SAND and SILT, moist, loose, root fragments	0.0
	1022426	100		12": As Above; 11": Strong brown, fine SAND and SILT, moist, loose	0
4	1022427	100		As Above	0.1
	1022428	100		Light yellowish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0
8	1022429	100		As Above	0
	1022430	100		Yellowish brown, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0
12	1022431	50		Yellowish brown, fine SAND, little medium Sand, trace Silt, wet, loose	0
	1022432	50		Strong brown, fine SAND, little medium Sand, trace Silt, wet, loose	0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring SA-SB-37



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/19/96 <b>End Date</b> 11/19/96		<b>Boring ID</b> <b>SA-SB-38</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022436	100		18": Dark brown, fine SAND, some Silt, little medium Sand, moist, loose, root fragments; 5": Concrete rubble	0.0
	1022436 1022437	100		Yellowish red, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
4	1022438	100		Light yellowish brown, fine SAND, with medium Sand, some Silt, little coarse Sand, wet, loose	0.2
	1022439	100		As Above	0.0
8	1022440	100		As Above	0.8
	1022441	100		Strong brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0.2
12	1022442	100		Pale brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0.6
	1022443	100		Strong brown, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-38



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone (203) 747-6181 FAX (203) 747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 11/19/96 <b>End Date:</b> 11/19/96		<b>Boring ID:</b> <b>SA-SB-39</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022444	100		5": Black, fine SAND and SILT, moist, loose, organic, root fragments; 18": Yellowish red, fine Sand, some Silt, little medium Sand, moist, loose	0.0
	1022445	100		As Above	0.1
4	1022446	100		Light yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	0.2
	1022447	100		As Above, wet	0.0
8	1022448	100		Light greyish brown, fine to medium SAND, little Silt, trace(+) coarse Sand, trace(-) fine Gravel, wet, loose	0.0
	1022449	100		Yellowish brown, medium SAND, some coarse Sand, little fine Sand, trace(+) fine Gravel, trace(-) Silt, wet, loose	0.1
12	1022450	100		Yellowish brown, fine SAND, some Silt, little medium Sand, trace(-) coarse Sand, wet, loose	0.0
	1022451	100		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring 1 SA-SB-39



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Add. Invest. Fire Training Area 'B'  
**LEA Comm No:** 68VC623  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
11/19/96  
**End Date**  
11/19/96

**Boring ID**  
**SA-SB-40**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** Hours  
**Depth:** At: Hours

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1022452	100		8": Black, fine SAND and SILT, moist, loose, organic, root fragments; 15": Brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0
	1022453	100		As Above	0.2
4	1022454	50		Yellowish brown, medium SAND, with fine Sand, little coarse Sand, trace Silt, moist, loose	0.1
	1022455	50		Yellowish brown, medium SAND, little fine Sand, trace(+) Silt, trace(-) coarse Sand, wet, loose	0.1
8	1022456	100		As Above	0.0
	1022457	100		6": As Above; 17": Dark yellowish red, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose	0.0
12	1022458	100		15": Grayish brown, fine to medium SAND, some coarse Sand, trace Silt, wet, loose; 8": Yellowish red, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	0.0
	1022459	100		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/21/1998

Boring No: SA-SB-40

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/20/96 <b>End Date</b> 11/20/96		<b>Boring ID</b> <b>SA-SB-41</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1022462	100		4": Black, fine SAND and SILT, moist, loose, root fragments, organic; 19": Brown, fine SAND, with Silt, little medium Sand, moist, loose	0.1		
	1022463 1022464	100		12": Reddish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose; 11": Light yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	0.0		
4	1022465	100		Yellowish brown, medium SAND, little fine Sand, trace(+) coarse Sand, trace(-) Silt, moist, loose	0.1		
	1022466	100		As Above, wet	0.2		
8	1022467	100		As Above	0.2		
	1022468	100		12": As Above; 11": Dark reddish brown/black, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.5		
12	1022469	100		Pale yellowish brown, fine SAND, with medium Sand, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.2		
	0122470	100		Dark reddish yellow, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.0		
16				Bottom of Boring at 15.0'			
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/21/1998

Boring ID: A-SB-41



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/20/96 <b>End Date</b> 11/20/96		<b>Boring ID</b> SA-SB-42	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022471	100		6": Black, fine SAND and SILT, moist, loose, root fragments organic; 15": Brown, fine SAND, with Silt, little medium SAND, moist, loose; 2": Reddish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.0
	1022472	100		10": As Above; 13": Light yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.0
4	1022473	50		As Above, concrete rubble	0.3
	1022474	50		As Above, wet	0.0
8	1022475	100		Dark yellowish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.5
	1022476	100		18": As Above; 5": Dark reddish brown/black, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.0
12	1022477	100		Dark yellowish brown, medium SAND, with fine Sand, some coarse Sand, with Silt, trace fine Gravel, wet, loose	1.3
	1022478	100		As Above	0.1
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-42



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/20/96 <b>End Date</b> 11/20/96		<b>Boring ID</b> <b>SA-SB-43</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022479	100		Brown, fine SAND, with Silt, moist, loose, root fragments	0.0
	1022480	100		10": As Above; 13": Yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.0
4	1022481	100		As Above	0.0
	1022482	100		Dark yellowish brown, fine to medium SAND, little Silt, trace(+) coarse Sand, wet, loose	0.0
8	1022483	50		As Above	0.1
	1022484	50		8": As Above; 4": Dark reddish brown/black, medium to coarse SAND, some fine Sand, little Silt, wet, loose	0.0
12	1022485	100		Dark yellowish brown, medium SAND with fine Sand, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.0
	1022486	100		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No. A-SB-43





**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/20/96 <b>End Date</b> 11/20/96		<b>Boring ID</b> SA-SB-44	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b>  <b>Depth:</b> <b>At:</b> <b>Hours</b> 				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022487	100		5": Dark brown, fine SAND and SILT, moist, loose, root fragments, organic; 18": Brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0
	1022488	100		As Above	0.0
4	1022489	50		As Above	0.0
	1022490	50		As Above, wet	0.1
8	1022491	100		As Above	0.7
	1022492	100		15": As Above; 8": Dark reddish brown, medium SAND, some coarse Sand, little fine Sand, trace Silt, wet, loose	0.0
12	1022493	100		Strong brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.9
	1022494	100		As Above	0.1
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-44



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/21/96 <b>End Date</b> 11/21/96		<b>Boring ID</b> SA-SB-45	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022497	100		18": Brown, fine SAND and SILT, little medium Sand, moist, loose, some root fragments; 5": Strong brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
	1022498	100		As Above	0.0
4	1022499	100		Light yellowish brown, fine to medium SAND, some Silt, moist, loose	2.5
	1022500	100		As Above, wet at ≈7.0'	0.0
8	1022501	100		As Above	0.1
	1022502	100		Dark reddish yellow, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose	0.2
12	1022503	100		As Above	2.3
	1022504	100		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/20/1998

Boring N A-SB-45



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/21/96 <b>End Date</b> 11/21/96		<b>Boring ID</b> SA-SB-46	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1022506	100		Brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0		
	1022506	100		6": As Above; 17": Light yellowish brown, fine to medium SAND, little Silt, trace coarse Gravel, moist, loose	0.0		
4	1022507	50		As Above, very moist	0.0		
	1022508	50		Yellowish brown, medium to coarse SAND, with fine Sand, little Silt, trace fine Gravel, wet, loose	0.2		
8	1022509 1022510	100		Olive brown, fine SAND, with Silt, wet, loose	0.1		
	1022511	100		As Above	0.0		
12	1022512	100		As Above	0.0		
	1022513	100		Reddish brown, fine SAND, with Silt, wet, loose	0.0		
16				Bottom of Boring at 15.0'			
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. Olive grey, varved CLAY, trace Silt, wet, stiff at 15.5'							

Printed On: 1/20/1998

Boring No: SA-SB-46



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/25/96 <b>End Date</b> 11/25/96		<b>Boring ID</b> SA-SB-47	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022516	100		1": Dark brown, fine SAND and SILT, moist, loose, root fragments, organic; 22": Yellowish brown, fine SAND and SILT, moist, loose, root fragments	2.0
	1022517	100		Light yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	2.5
4	1022518	50		Greyish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet at ≈5.0', loose	3.0
	1022519	50		6": Black medium SAND, with fine Sand, trace(-) Silt, wet, loose, hydrocarbon odor; 6": Olive brown, fine SAND, little Silt, trace medium Sand, wet, loose	5.5
8	1022520	50		As Above	30
	1022521	50		As Above	2.5
12	1022522	75		10": Dark red, medium SAND, some fine Sand, little coarse Sand, little Silt, wet, loose; 8": Olive grey, varved CLAY, trace Silt, wet, loose	2.0
	1022523	75		As Above	4.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring 1  
JA-SB-47



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/25/96 <b>End Date</b> 11/25/96		<b>Boring ID</b> SA-SB-48	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022524	100		Yellowish brown, fine SAND and SILT, moist, loose, root fragments	0.0
	1022525 1022526	100		Light yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	0.5
4	1022527	50		Yellowish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, moist, loose	0.0
	1022528	50		Light olive brown, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.0
8	1022529	100		Olive brown, fine SAND, with Silt, wet, loose	2.0
	1022530	100		6": As Above; 17": Dark yellowish brown, fine SAND, little Silt, trace medium Sand, wet, loose	1.0
12	1022531	100		18": Light olive brown, fine SAND, little Silt, wet, loose; 5": Red, medium SAND, some fine Sand, little Silt, trace coarse Sand, wet, loose	0.0
	1022532	100		As Above	
16				Bottom of Boring at 15.'*	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* Olive grey, varved CLAY, trace Silt, wet, stiff at 15.5'.

Printed On: 1/20/1998

Boring No: SA-SB-48



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/25/96 <b>End Date</b> 11/25/96		<b>Boring ID</b> SA-SB-49	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022533	100		Yellowish brown, fine SAND and SILT, moist, loose, processed stone, slag, coal fragments	0.0
	1022534	100		Light yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	0.0
4	1022535	100		Greyish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet at ≈5.0', loose	-
	1022536	100		5": Black, medium SAND with fine Sand, trace(-) Silt, wet, loose; 18": Olive brown, fine SAND, little Silt, trace medium Sand, wet, loose	2.0
8	1022537	100		Dark grey, medium SAND and fine SAND, little Silt, trace coarse Sand, wet, loose	9.0
	1022538	100		Yellowish brown, fine SAND, some Silt, wet, loose	5.0
12	1022539	100		8": As Above; 15": Red, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	1.0
	1022540	100		As Above	1.0
16				Bottom of Boring at 15.0	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion. Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'.

Printed On: 1/20/1998

Boring ID: SA-SB-49



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/26/96 <b>End Date</b> 11/26/96		<b>Boring ID</b> SA-SB-50	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022543	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments	2.0
	1022544	100		Light yellowish brown, fine SAND, some Silt, trace(-) medium Sand, moist, loose	3.5
4	1022545	50		Greyish brown, fine to medium SAND, little Silt, trace coarse Sand, wet at ≈ 5.0', loose	5.0
	1022546 1022547	50		20": Greyish brown, medium SAND, some coarse Sand, little fine Sand, trace Silt, wet, loose; 3": Black, medium SAND, little coarse Sand, little fine Sand, trace(-) Silt, wet, loose, hydrocarbon odor	7.5
8	1022548	100		Dark olive brown, fine to medium SAND, little coarse Sand, little Silt, wet, loose	35.0
	1022549	100		Dark olive grey, fine SAND, some Silt, wet, loose	7.0
12	1022550	50		Grey, fine SAND, little medium Sand, trace Silt, wet, loose	3.0
	1022551	50		Red, medium to coarse SAND, some fine Sand, little Silt, wet, loose	3.5
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion. Olive grey, varved CLAY, trace Silt, wet, stiff at 15.5'.

Printed On: 1/20/1998

Boring No: SA-SB-50



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/26/96 <b>End Date</b> 11/26/96	<b>Boring ID</b> SA-SB-51
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022552	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose	1.0
	1022553	100		Light yellowish brown, fine SAND, some Silt, trace(-) medium Sand, moist, loose	2.0
4	1022554	100		Greyish brown, fine to medium SAND, little coarse Sand, little Silt, wet at ≈5.0', loose	3.0
	1022555	100		15": As Above; 8": Black, medium SAND, little coarse Sand, little fine Sand, trace(-) Silt, wet, loose, hydrocarbon odor	120.0
8	1022556	100		Dark olive brown, fine to medium SAND, little coarse Sand, little Silt, wet, loose	210.0
	1022557	100		Dark olive grey, fine SAND, little Silt, trace medium Sand, wet, loose	2.0
12	1022558	10		Red, medium to coarse SAND, some fine Sand, little Silt, wet, loose	5.0
	1022559	100		Olive grey, varved CLAY, trace Silt, wet, stiff	4.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On 1/21/1998

Boring No. SA-SB-51



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/26/96 <b>End Date</b> 11/26/96		<b>Boring ID</b>  <b>SA-SB-52</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022560	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments	4.0
	1022561	100		Light yellowish brown, fine SAND, some Silt, trace(-) medium Sand, moist, loose	2.0
4	1022562	75		Olive brown, fine SAND, some medium Sand, little Silt, wet at ≈ 5.0', loose	1.0
	1022563	75		As Above	1.0
8	1022564	75		Dark reddish yellow, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	3.0
	1022565	75		As Above	0.5
12	1022566	10		Olive grey, varved CLAY, trace Silt, wet, stiff	1.0
	1022567	100		As Above	
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-52



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Add. Invest. Fire Training Area 'B'  
**LEA Comm No:** 68VC623  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
11/27/96  
**End Date**  
11/27/96

**Boring ID**  
SA-SB-53

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**  
**Depth:** **At:** **Hours**

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
0	1022570	100		Light brown, fine SAND, some Silt, trace(-) medium Sand, moist, loose	0.0
	1022571	100		Light yellowish brown, fine SAND, little Silt, moist, loose	0.0
4	1022572 1022573	100		Light olive brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet at ≈5.0', loose	1.0
	1022574	100		7": 16": Black, fine to medium SAND, little coarse Sand, trace(-) Silt, wet, loose, hydrocarbon odor	350.0
8	1022575	100		Light olive brown, fine to medium SAND, little Silt, wet, loose	1.0
	1022576	100		As Above	0.0
12	1022577	5		As Above	-
	1022578	10		Olive grey, varved CLAY, trace Silt, wet, stiff	-
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/21/1998

Boring No

1-SB-53

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/02/96 <b>End Date</b> 12/02/96		<b>Boring ID</b> SA-SB-54	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022587	83		Top 6": Dark brown, medium SAND, some fine Sand, moist, topsoil; Bottom 18": Brown, fine SAND, moderately dense, moist	0.0
	1022588	100		Greyish brown, coarse SAND, with medium Sand, loose, moist, poorly graded	0.0
4	1022589	21		As Above	0.2
	1022590	100		As Above	0.0
8	1022591	75		As Above, wet	0.0
	1022592	100		Top 20": As Above; Bottom 2": Reddish brown, medium SAND, with fine Sand, loose, wet	0.0
12	1022593	17		Grey, varved CLAY, dense, wet, hit clay at 13'	0.0
	1022594	100		As Above	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-54



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/02/96 <b>End Date</b> 12/02/96		<b>Boring ID</b> SA-SB-55	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022595	58		Top 4": Dark brown, fine SAND, loose, well sorted, organic material	0.0
	1022596	100		Light brown, fine SAND, moist, moderately dense, well sorted	0.0
4	1022597	25		Top 18": No Recovery; Bottom 6": As Above	0.0
	1022598	100		Top 1': As Above; Bottom 1': Reddish brown, fine SAND, some medium Sand, wet, loose, poorly sorted	0.0
8	1022599	46		Top 13": No Recovery; Bottom 11": Brown, fine SAND, with medium Sand, wet, loose	0.0
	1022600	100		Top 1': As Above; Bottom 1': Reddish brown, fine SAND, with medium Sand, wet, loose	0.0
12	1022601	83		Top 1': Brownish grey, silty CLAY, trace(-) fine Sand, wet, dense, Bottom 1': Brownish grey, varved CLAY, dense	0.1
	1022602	100		As Above	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring N  
A-SB-55



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/02/96 <b>End Date</b> 12/02/96	<b>Boring ID</b>  <b>SA-SB-56</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022603	50		Brown, fine SAND, dry, loose, organic matter	0.0
	1022604	100		Brown, medium SAND and fine SAND, moist, moderately dense	0.0
4	1022605	29		As Above	0.0
	1022606	83		Top 6": As Above; Bottom 18": Blackish red, medium SAND and fine SAND, wet, moderately dense, mottled	0.0
8	1022607	38		As Above	0.0
	1022608	100		As Above	0.0
12	1022609	83		Top 1': Brownish grey, silty CLAY, moist, dense; Bottom 1': Grey, varved CLAY, dense	0.0
	1022610	92		As Above	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-56



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96		<b>Boring ID</b> SA-SB-57	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022720	50		Top 2": Bituminous; Dark reddish brown, coarse SAND, some medium Sand, trace(+) fine Sand, loose, moist	0.0
	1022721	100		Brown, medium SAND, with fine Sand, moist, loose	0.0
4	1022722	100		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998


Boring No. A-SB-57



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96	<b>Boring ID</b>  <b>SA-SB-58</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b>  <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022723	50		Top 2": Bituminous; Dark reddish brown, coarse SAND, some medium Sand, trace(+) fine Sand, moist, loose	0.0
	1022724	100		Brown, medium SAND, with fine Sand, moist, loose	0.0
4	1022725	67		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-58



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96	<b>Boring ID</b>  <b>SA-SB-59</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022726	50		Top 2": Bituminous; Dark reddish brown, coarse SAND, some medium Sand, trace(+) fine Sand, moist, loose	0.0
	1022727	100		Brown, medium SAND, with fine Sand, moist, loose	0.0
4	1022728	83		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/20/1998

Boring N. A-SB-59



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 2/03/96		<b>Boring ID</b> <b>SA-SB-60</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022729	50		Top 1": Bituminous; Dark reddish brown, coarse SAND, some medium Sand, trace(-) fine Sand, moist, loose	0.0
	1022730	100		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022731	75		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-60



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96	<b>Boring ID</b>  <b>SA-SB-61</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	
<b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>					

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1022732	50		Top 2": Bituminous concrete; Bottom 10": Dark reddish brown, coarse SAND, some medium Sand, moist, loose	0.0
	1022733	100		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022734	67		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/20/1998

Boring No. A-SB-61



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96		<b>Boring ID</b> <b>SA-SB-62</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022735	58		Top 1": Bituminous concrete; Dark reddish brown, coarse SAND, some medium Sand, trace fine Sand, moist, loose	0.0
	1022736	100		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022737	75		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-62



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96	<b>Boring ID</b> SA-SB-63
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022738	67		Top 1": Bituminous; Dark reddish brown, coarse SAND, some medium Sand, trace fine Sand, moist, loose	0.0
	1022739	100		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022740	58		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No. SA-SB-63



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT		<b>Start Date:</b> 12/03/96 <b>End Date:</b> 12/03/96	<b>Boring ID</b> <b>SA-SB-64</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022741	50		Top 1": Bituminous concrete; Dark reddish brown, coarse SAND, some medium Sand, trace fine Sand, moist, loose	0.0
	1022742	50		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022743	33		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-64



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/03/96 <b>End Date</b> 12/03/96	<b>Boring ID</b> SA-SB-65
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022744	50		Top 1": Bituminous concrete; Dark reddish brown, coarse Sand, some medium Sand, trace fine Sand, moist, loose	0.0
	1022745	100		Brown, medium SAND, some(-) fine Sand, moist, loose	0.0
4	1022746	67		As Above	0.0
8				Bottom of Boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No.

1-SB-65



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/04/96 <b>End Date</b> 12/04/96	<b>Boring ID</b> SA-SB-66
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022751	71		Brown to dark reddish brown, fine to medium SAND, trace coarse Sand, trace(-) Silt, moist, loose	0.0
	1022752				0.0
4	1022753	63		Dark yellowish brown, fine to coarse(+) SAND, with very fine Gravel, moist to wet, loose	-
	1022754				-
8	1022755	67		Dark reddish brown, fine to coarse SAND, trace Silt, trace fine Gravel, wet, loose	0.0
	1022756				0.0
12	1022757	62		Dark yellowish brown, fine to coarse(+) SAND, with fine Gravel, wet, loose, coarsening downwards to fine GRAVEL, with fine to coarse(+) Sand, wet, loose, angular to subrounded	0.0
	1022758				0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-66



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/04/96 <b>End Date</b> 12/04/96		<b>Boring ID</b> SA-SB-67	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{4}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{4}$				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description  Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1022760	79		Dark reddish brown, fine to medium SAND, trace(-) Silt, slightly moist, loose, gradually changing to dark yellowish brown, fine to medium SAND, trace coarse Sand, moist, loose	0.0
	1022761 1022762				0.0
4	1022763	69		Dark yellowish brown, fine to medium SAND, wet, loose, coarsening downward to dark yellowish brown, fine to coarse(+) SAND with fine Gravel, wet, loose	0.0
	1022764				0.5
8	1022765	67		Dark yellowish brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, occasional iron staining, slight coarsening at tip	0.0
	1022766				0.0
12	1022767	62		As Above	0.0
	1022768				0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring N

A-SB-67



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/04/96 <b>End Date</b> 12/04/96	<b>Boring ID</b>  <b>SA-SB-68</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022769	79		8": Dark reddish brown, fine SAND with Silt, little fine Gravel, dense, slightly moist; 30": Dark yellowish brown, fine to medium SAND, trace coarse Sand, slightly moist, loose	0.0
	1022770				0.0
4	1022771	58		As Above, coarsening downward to a dark yellowish brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, subangular	0.0
	1022772				0.0
8	1022773	71		Dark yellowish brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose	0.0
	1022774				0.0
12	1022775	63		Dark yellowish brown, fine Gravel, with fine to coarse(+) Sand	-
	1022776				-
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/21/1998

Boring No: SA-SB-68



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Add. Invest. Contractor Storage Area  
**LEA Comm No:** 68VC624  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
12/05/96  
**End Date**  
12/05/96

**Boring ID**  
**SA-SB-69**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**  
**Depth:** **At:** **Hours**

**Logged By:** J. Klapheke  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
0	1022778	77		6": Dark reddish brown, fine to medium GRAVEL with fine to coarse Sand, trace Silt, slightly moist, loose, subrounded;	0.0
	1022779			12": Reddish brown, fine(+) to medium SAND, some Silt, trace fine to medium Gravel, slightly dense, slightly moist;	0.0
	1022780			19": Reddish brown to dark yellowish brown, fine to medium SAND, trace fine Gravel, trace Silt, moist, loose	
4	1022781	63		Dark yellowish brown, fine to medium SAND, trace coarse Sand, moist to wet, loose to slightly dense	0.0
	1022782				0.0
8	1022783	63		Dark yellowish brown, fine to coarse(+) SAND, with fine Gravel, wet, loose, subangular to subrounded	0.0
	1022784				0.0
12	1022785	54		Dark yellowish brown, fine to coarse(+) SAND, some fine Gravel, trace Silt, wet, loose, micaceous	0.0
	1022786				0.0
16				Bottom of Boring 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring No.

A-SB-69

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 12/05/96 <b>End Date</b> 12/05/96	<b>Boring ID</b>  <b>SA-SB-70</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022788	73		12": Dark reddish brown, fine to coarse SAND, with fine Gravel, some Silt, slightly moist, loose; 23": Dark reddish brown, fine SAND, with Silt, slightly moist, slightly dense	0.0
	1022789				0.0
4	1022790	56		21": Dark reddish brown, fine SAND, with Silt, moist, slightly dense; 6": Dark reddish brown, fine to coarse SAND, some Silt, wet, loose	0.0
	1022791				0.0
8	1022792	58		Dark reddish brown, fine to coarse(+) SAND, little fine Gravel, wet, loose, subrounded	0.0
	1022793				0.0
12	1022794	56		Dark reddish brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, occasional iron staining, greyish brown in color in last 4" ±	0.0
	1022795				0.0
16				Bottom of Boring 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No: SA-SB-70



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Contractor Storage Area <b>LEA Comm No:</b> 68VC624 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date:</b> 12/05/96 <b>End Date:</b> 12/05/96		<b>Boring ID:</b> <b>SA-SB-71</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1022796	67		2": Reddish brown, fine to medium SAND, trace fine Gravel, slightly moist, loose, lightly rooted; 12": Compacted leaves and brush, rotting; 18": Reddish brown, fine to medium SAND, slightly moist to moist, loose, occasional iron staining	11.0
	1022797				0.0
4	1022798	44		2": As Above; 9": Dark brown, fine SAND and SILT, moist, slightly dense; 10": Reddish brown, fine SAND, with Silt, moist, loose	0.0
	1022799				0.0
8	1022800	65		Reddish brown to greyish brown, fine to coarse(+) SAND, trace fine Gravel, wet, loose, generally coarsening downward	0.0
	1022801				0.0
12	1022802	63		Reddish brown, fine to coarse(+) SAND, little fine Gravel, wet, loose, coarsening downward to a greyish brown, fine GRAVEL, with fine to coarse(+) Sand, wet, loose	0.0
	1022803				0.0
16				Bottom of Boring 16'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/20/1998

Boring No. -SB-71



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 12/10/96 <b>End Date:</b> 12/10/96		<b>Boring ID:</b> <b>SA-SB-72</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023145	92		Top 1.5': Dark brown, fine SAND, some(-) medium Sand, low sphericity, organics, subrounded, moderately dense, slightly moist; Bottom 6": Light brown, fine SAND, some(-) medium Sand, poorly sorted, slightly moist, moderately dense	0.0
	1023146	100		As Above, moist	0.1
4	1023147	50		As Above	0.0
	1023148	42		As Above, wet	0.0
8	1023149	25		As Above	0.0
	1023150	100		Top 6": As Above; Bottom 1.5': Grey, fine SAND, wet, dense, well sorted	6.8
12	1023151	38		Light brown, fine SAND, wet, dense, poorly sorted	0.0
	1023152	100		Top 6": As Above; Bottom 1.5': Grey, varved CLAY, dense, wet	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-72



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/10/96 <b>End Date</b> 12/10/96		<b>Boring ID</b> SA-SB-73	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023153	92		Top 1': Dark brown, fine SAND, trace(-) medium SAND, dry, loose, poorly sorted, organic material; Bottom 1': Brown, fine SAND, some medium Sand, slightly moist, moderately dense, poorly sorted	0.0
	1023155	100		As Above	0.0
4	1023156	25		As Above	0.2
	1023157	100		Top 1': As Above; Bottom 1': Greyish brown, fine SAND, some(+) medium Sand, wet, loose, poorly sorted, subrounded	2.2
8	1023158	33		As Above	8.0
	1023159	100		As Above	0.2
12	1023160	25		As Above; except Reddish brown and mottled	0.4
	1023161	100		Grey, varved CLAY, wet, dense	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No.

SA-SB-73



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/11/96 <b>End Date</b> 12/11/96	<b>Boring ID</b>  <b>SA-SB-74</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1023164	58		Top 3": Dark brown, fine SAND, some(-) medium Sand, slightly moist, loose, organic material; Bottom 1': Brown, fine SAND, trace medium Sand, slightly moist, loose, organic matter, poorly sorted	0.0
	1023165	100		As Above	0.0
4	1023166	25		As Above	0.0
	1023167	92		Top 1': As Above; Bottom 1': Greyish brown, fine SAND, trace(+) medium Sand, slightly moist, loose, poorly sorted, subangular, grey/black staining, rank odor	13.0
8	1023168	33		As Above	22.0
	1023169	92		As Above	50.0
12	1023170	67		Top 1': As Above; Pinkish brown, fine SAND and(+) medium SAND, wet, loose, low sphericity, subangular, poorly sorted	1.0
	1023171	75		Top 6": As Above; Bottom 1.5': Grey, varved CLAY, wet, dense	0.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with Bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-74



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/11/96 <b>End Date</b> 12/11/96		<b>Boring ID</b> SA-SB-75	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023172	50		Top 3": Dark brown, fine SAND, trace(-) medium Sand, slightly moist, loose, organics; Bottom 9": Brown, fine SAND, slightly moist, loose	0.0
	1023173	100		As Above	0.0
4	1023174	33		Greyish brown, fine SAND and(-) medium Sand, slightly moist, loose, poorly sorted	0.0
	1023175	100		Top 1.5': As Above; Bottom 6": Grey, fine SAND, some(+) medium Sand, moist, loose, poorly sorted, slight rank odor, mottled	10.0
8	1023176	50		Grey, fine SAND, trace(+) medium Sand, wet, loose, poorly sorted, rank odor	26.0
	1023177	100		As Above	22.0
12	1023178	42		As Above	6.0
	1023179	83		Top 8": Reddish brown, fine SAND and(+) medium SAND, wet, loose, poorly sorted; Bottom 1': Grey, varved CLAY, wet, dense	0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b> Borehole backfilled with Bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring N. A-SB-75



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/18/97 <b>End Date</b> 12/18/97		<b>Boring ID</b>  <b>SA-SB-76</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> 17 <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023859	83		Top 6": Dark brown, fine SAND, some(-) medium Sand, loose, slightly moist, processed stone, organics; Bottom 14": Light brown, fine SAND, trace(+) medium Sand, loose, slightly moist, poorly sorted	0.0
	1023860	100		Top 1': As Above; Bottom 1': As Above, wet	0.0
4	1023861	50		As Above; moist	0.0
	1023862	50		Top 9": As Above; Bottom 3": Grey, medium SAND, some(-) fine Sand, loose, wet, poorly sorted, gray/black staining, rank odor	18
8	1023863	50		As Above	22
	1023864 1023865	100		Grey, fine SAND, trace(+) medium Sand, wet, loose, poorly sorted, grey/black staining, rank odor	28 30
12	1023866	50		As Above	20
	1023867	100		Top 2": As Above; 7": Reddish brown, fine SAND and(-) medium SAND, wet, loose, poorly sorted, mottling; Bottom 15" : Olive grey, varved CLAY, wet, dense, stiff	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with Bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-76



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/18/97 <b>End Date</b> 12/18/97		<b>Boring ID</b> SA-SB-77	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023868	83		Top 4": Dark brown, fine SAND, trace(-) Sand, slightly moist, loose, processed, stone, organics; Brown, fine SAND, trace(-) medium Sand, slightly moist, loose, poorly graded	0.0
	1023869	100		As Above	0.0
4				No Recovery	
	1023871	75		Top 1': As Above; Bottom 6": Grey, fine SAND, trace(+) medium Sand, moist, loose, poorly graded, grey/black staining, rank odor	4.0
8	1023872	58		As Above, wet	5.0
	1023873	67		As Above	10.0
12	1023874	25		Reddish brown, fine SAND, trace(-) medium Sand, wet, loose, poorly graded, mottling	2.0
	1023875	0		Top 1': As Above; Bottom 1': Olive, grey, varved CLAY, wet, dense, stiff	4.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with Bentonite chips upon completion.

Printed On: 1/20/1998

Boring N. JA-SB-77



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Training Area 'B' <b>LEA Comm No:</b> 68VC623 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/18/96 <b>End Date</b> 12/18/96		<b>Boring ID</b> SA-SB-78	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023876	50		Dark brown, fine SAND, trace(-) coarse Sand, slightly moist, loose, poorly sorted, organics, processed stone	3.0
	1023877	100		Brown, fine SAND, trace(-) medium Sand, slightly moist, loose, poorly sorted	4.0
4				No Recovery	
	1023879	33		Grey, fine SAND and(-) medium SAND, moist, loose, poorly sorted, grey/black staining, rank odor	4.0
8	1023880	25		As Above, wet	2.0
	1023881	100		As Above	6.0
12	1023882	25		As Above	3.0
	1023883	100		Top 18": Reddish brown, fine SAND, some(-) medium Sand, wet, loose, poorly sorted, mottled; Bottom 6": Olive grey, varved CLAY, wet, dense, stiff	3.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b> Borehole backfilled with Bentonite chips upon completion.
--

Printed On: 1/20/1998

Boring No: SA-SB-78



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/19/96 <b>End Date</b> 12/19/96		<b>Boring ID</b>  <b>SA-SB-79</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023892	75		Top 8": Dark brown, fine SAND, trace medium Sand, trace Silt, moist, loose, organics; 8-24": Brown, fine SAND, trace(+) medium Sand, slightly moist	0
	1023893	100		As Above, trace Silt	0
4	1023894	80		Brown, fine SAND, trace(-) medium Sand, loose	0
	1023895	80		6": Reddish brown, medium SAND, trace(+) fine Sand, wet, loose; Brown, fine SAND, trace(+) medium Sand, moist, loose	0
8	1023896	80		As Above	0
	1023897	80		Dark brown, fine SAND, some medium Sand, trace(-) coarse Sand, moist, loose	0
12	1023898	95		As Above; Bottom 3": Reddish brown, medium Sand, some coarse Sand, moist, loose	0
	1023899	95		Top 3": As Above; Brown, fine SAND, trace medium Sand(-), wet, loose	1.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On 1/21/1998

Boring No. 1-SB-79



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/19/96 <b>End Date</b> 12/19/96		<b>Boring ID</b>  <b>SA-SB-80</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1023900	95		Top 8": Dark brown, fine SAND, trace(-) medium Sand, trace Silt, loose, organics, damp; 8-24": Brown, fine SAND, trace(-) medium Sand, slightly moist	0		
	1023901	95		As Above	0		
4	1023902	90		As Above	0		
	1023903	90		As Above	0		
8	1023904	85		As Above	0		
	1023905	85		Top 18": As Above; Bottom 6": Dark brown black, medium to coarse SAND, mottling, loose, moist	0		
12	1023906	85		Top 12": As Above, wet; Bottom 12": Brown, fine SAND, trace(+) medium Sand, wet	0		
	1023907	85		As Above	0		
16				Bottom of Boring at 16'			
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/21/1998

Boring No: SA-SB-80



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/20/96 <b>End Date</b> 12/20/96	<b>Boring ID</b> SA-SB-81
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023925	95		Top 8": Dark brown, fine to medium SAND, trace(-) coarse Sand, some Silt, dry, loose; Bottom 16": Brown, fine SAND, trace(+) medium Sand, slightly moist, tight, occasional coarse Gravel	
	1023926	95		As Above, No coarse Gravel	
4	1023927	40		As Above, with trace Silt	
	1023928	40		As Above, damp at Bottom 3"	
8	1023929	80		As Above, wet with trace(-) organics	
	1023930	80		As Above, wet with trace(-) organics	
12	1023931	100		As Above	
	1023932	100		As Above	
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No

1-SB-81



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 12/20/96 <b>End Date</b> 12/20/96	<b>Boring ID</b>  <b>SA-SB-82</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>▽</b> <b>Depth:</b> <b>At:</b> <b>Hours</b> <b>⇓</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023933	80		Top 8": Dark brown, fine SAND, trace(+) medium Sand, trace(+) Silt, moist, loose, organics; Bottom 16": Brown, fine SAND, trace(-) medium Sand, slightly moist, tight	
	1023934	80		As Above	
4	1023935	40		Top 3": As Above; Bottom: Very dark brown, fine SAND, trace(+) Silt, damp, tight	
	1023936 1023941	40		Red brown, fine SAND, trace(+) medium Sand; Bottom 3": Wet, above damp, tight	
8	1023937	85		As Above; Bottom 3": Red brown, medium SAND, trace(+), fine Sand, wet, loose	
	1023938	85		As Above; Bottom 2": Coarse SAND	
12	1023939	85		Top 1": As Above; Bottom: Red brown, medium SAND, trace(-) fine Sand, wet, loose	
	1023940	85		As Above	
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SA-SB-82



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** South Airport Fill Area  
**LEA Comm No:** 68VC628  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
01/07/97  
**End Date**  
01/07/97

**Boring ID**  
**SA-SB-83**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** Hours  $\frac{1}{2}$   
**Depth:** At: Hours  $\frac{1}{2}$

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1023943	100		Top 6": Topsoil; Middle 8": Brown, medium to fine SAND, trace(+) very fine Sand, organics, moist, loose; Bottom 10": Brown, fine SAND, trace(-) medium Sand, moist, loose	0
	1023944	75		As Above	1.0
4	1023945	50		Top 6": Brown, medium to fine SAND, trace(-) very fine Sand, moist, dense; Middle 6": Brown, fine SAND, trace(+) medium Sand, dense, wet	0
	1023946	42		Top 4": Brown, medium to fine SAND, loose, wet; Middle 14": Wood push probe through; Bottom 6": As Above top 4"	0
8	1023947	50		Top 6": Brown, medium to fine SAND, trace(-) coarse Sand, wet, loose; Bottom 6": As Above with 3" Cobble in sample	0
	1023948	50		Grey, fine to medium SAND, wet, loose	0
12	1023949 1023952	83		Orange, medium to fine SAND, loose, wet	0
	1023950	83		As Above	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No:

-SB-83



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 01/08/97 <b>End Date:</b> 01/08/97		<b>Boring ID:</b> <b>SA-SB-84</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023953	8		Top 4": Topsoil; Bottom 8": Brown, fine SAND, trace(+) medium Sand, organics, moist, loose	0
	1023954	50		Brown, fine SAND, trace(-) medium Sand, moist, loost, Cobble in shoe	0
4	1023955	75		Top 8": As Above; Bottom 10": Brown, medium to fine SAND, trace(-) coarse Sand, wet at bottom 1"	0
	1023956	75		As Above, wet	0
8	1023957	75		Brown, medium to fine SAND, trace(-) coarse Sand, trace(-) fine Gravel, wet, loose	0
	1023958	75		Top 10": As Above; Bottom 8": Brown, coarse to fine SAND, wet, loose	0
12	1023959	75		Brown, medium to fine SAND, trace(-) coarse Sand, wet	0
	1023960	75		As Above	
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/21/1998

Boring No: SA-SB-84



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 01/08/97 <b>End Date</b> 01/08/97	<b>Boring ID</b> <b>SA-SB-85</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023961	75		Top 4": Topsoil; 10": Brown, fine SAND, trace(+) medium Sand, trace organics, moist; 4": Concrete rubble	0
	1023962	75		Top 10": As Above; Bottom 8": Brown, medium to fine SAND, trace(-) coarse Sand, trace(-) fine Gravel, moist	0
4	1023963	42		Top 4": Brown, fine to very fine SAND, trace(-) medium Sand, dense, moist; Bottom 6": Brown, medium to fine SAND, trace(+) coarse Sand, loose, moist	0
	1023964	50		Brown, medium to fine SAND, moist, loose	0
8	1023965	50		As Above, wet	0
	1023966	50		Brown, coarse to fine SAND, wet, loose, trace(-) fine Gravel, iron staining in Bottom 4"	0
12	1023967	75		Top 10": Brown, fine SAND, trace(-) medium Sand, wet, dense; Bottom 8": Brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0
	1023968 1023969	75		Brown, fine to medium SAND, wet, loose	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No. -SB-85



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 01/08/97 <b>End Date</b> 01/08/97		<b>Boring ID</b> SA-SB-86	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023972	75		Top 3": Topsoil; Bottom 15": Brown, fine SAND, trace(+) medium Sand, trace organics, loose, moist	
	1025973	75		As Above Soil; liner material, with brick and coal fragments in Bottom 5" of sample	
4	1023974	50		Brown, fine SAND, little medium Sand, moist, trace organics, loose	
	1023975	50		Brown, fine SAND, trace(-) very fine Sand, moist, trace organics, loose, Cobbles in sample	
8	1023976	50		Top 10": Grey, medium to fine SAND, trace(-) very fine Sand, trace(-) coarse Sand, wet, trace(-) organics, loose; Bottom 2": Dark brown, medium to fine SAND, dense, wet	
	1023977	50		Top 8": As Above; Middle 4": Black, fine SAND, trace(-) Silt, trace(+) medium Sand, wet, dense; Bottom 4": Brown, fine SAND, trace(-) medium Sand, wet, loose	
12	1023978	75		Top 15": As Above; Bottom 3": Grey, fine SAND, trace(+) very fine Sand and Silt, trace organics, wet, dense	
	1023979	83		Dark grey to black, fine SAND, trace(+) very fine Sand, trace organics, wet, dense	
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed on 1/20/1998

Boring No: SA-SB-86



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68VC628 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 01/08/97 <b>End Date</b> 01/08/97		<b>Boring ID</b> SA-SB-87	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023980	75		Top 4": Topsoil; Bottom 14": Brown, fine SAND, trace(+) medium Sand, trace organics, moist, loose	
	1023981	75		Brown, fine SAND, trace(-) very fine Sand, trace organics, moist, moderately dense	
4	1023982	63		Top 2": Red brown, fine to medium SAND, moist, loose; Bottom 13": Brown, fine SAND, trace(-) very fine Sand, trace organics, moist, moderately dense, trace Gravel	
	1023983	63		As Above	
8	1023984	63		Dark brown, fine to very fine SAND, trace(-) Silt, trace(-) medium Sand, trace organics, wet, moderately dense	
	1023985	63		Top 13": As Above; Bottom 2": Brown, fine SAND, trace(-) medium Sand, wet, moderately dense	
12	1023986	75		Top 12": Alternating bands of grey and black, fine SAND, trace(+) medium Sand, wet, loose; Bottom 6": Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	
	1023987	75		As Above	
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/20/1998

Boring No. SA-SB-87



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/16/97 <b>End Date</b> 06/16/97		<b>Boring ID</b> SA-SB-88	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Trzaski <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1635876	88		Brown to black, fine SAND and SILT, dry to slightly moist, loose, trace fine Gravel (top 12"), rooted	1.6		
	1635877				0.2		
4	1635878	83		Brown to yellowish brown, fine to coarse SAND, little Silt, trace fine Gravel, moist, loose, slight coarsening downward	0.0		
	1635879				0.6		
8	1635880	83		Brown, fine to coarse SAND with fine Gravel, wet, loose, slight coarsening downward	0.0		
	1635881				0.8		
12	1635882	79		Brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, occasional iron staining	0.0		
	1635883				0.0		
16	Bottom of Boring at 16'						
20							
24							
<b>Comments:</b> Boring backfilled with bentonite							

Printed On: 1/20/1998

Boring No: SA-SB-88



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date:</b> 06/16/97 <b>End Date:</b> 06/16/97		<b>Boring ID:</b> <b>SA-SB-89</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Trzaski <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635884	92		Brown to drk brown, fine to medium SAND and SILT with coarse Gravel, dry to slightly moist, dense, concrete fragments	1.6
	1635885				1.4
4	1635886	62		Brown, fine to coarse SAND, trace Silt, trace fine Gravel, moist, loose	2.0
	1635887				2.3
8	1635888	62		Brown, fine to coarse(+) SAND with fine Gravel, wet, loose to slightly dense, occasional iron staining	0.0
	1635889				0.0
12	1635890	0		Brown to dark brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, occasional iron staining, slight coarsening downward	0.0
	1635891				0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 1/20/1998

Boring No. SA-SB-89



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/16/97 <b>End Date</b> 06/16/97		<b>Boring ID</b> SA-SB-90	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Trzaski <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635892	83		Brown, fine SAND and SILT, trace fine to coarse Gravel (top 12"), dry to moist, loose, rooted	1.2
	1635893				2.6
4	1635894	58		Brown, fine to coarse SAND, trace fine Gravel, moist to wet, loose	0.5
	1635895				1.6
8	1635896	58		Brown to dark brown, fine to coarse(+) SAND, some fine Gravel, wet, loose to slightly dense, occasional iron staining	1.1
	1635897				2.2
12	1635898	96		As Above, and fine Gravel	1.3
	1635899				0.8
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 1/20/1998

Boring No: SA-SB-90



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/17/97 <b>End Date</b> 06/17/97		<b>Boring ID</b>  <b>SA-SB-91</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours		Hours Hours		DRAFT			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (X)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635904	46		Brown, fine SAND, little Silt, trace organic matter, trace process stone, fine and coarse Gravel and brick pieces at bottom 4", dry to slightly moist, loose	3.2
	1635905				2.8
4	1635906	38		Brown to light yellowish brown, fine SAND, little Silt, trace(-) wood pieces, Cobble lodged in bottom, slightly moist to moist, loose	2.7
	1635907				2.7
8	1635908	75		Dark yellowish brown, fine SAND, some Silt, trace(-) medium Sand, trace organic matter, wet, loose	3.9
	1635909 1635910	75		Top 10": Dark brown, SILT and very fine SAND, little organic matter, moist, moderately dense; Bottom 8": Grey, medium to fine SAND, trace organic matter, wet, loose	2.1
12	1635911	75		Greyish brown, fine to coarse SAND, trace Silt, trace(-) organic matter, wet, loose	2.8
	1635912	75		Brownish yellow, medium(+) to fine SAND, wet, loose	3.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: -SB-91



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/17/97 <b>End Date</b> 06/17/97		<b>Boring ID</b>  <b>SA-SB-92</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635913	92		Top 14": Brown, fine SAND, some Silt, trace(-) fine and coarse Gravel, trace organic matter, dry, loose; Bottom 8": Brownish yellow, fine SAND, trace silt, slightly moist, loose	1.6
	1635914	92		Top 6": Same as last 8"; Middle 3": Very pale brown, fine to coarse SAND, dry, loose; Bottom 13": Same as top 6": moist, moderately dense	1.4
4	1635915	100		Yellowish brown, fine to very fine SAND, little Silt, slightly moist to moist, moderately dense	1.4
	1635916	100		Top 12": Dark yellowish brown, fine to very fine SAND, little Silt, moist, moderately dense; Bottom 12": Dark brown, fine SAND, some Silt, trace(-) medium Sand, trace organic matter, wet, loose	1.8
8	1635917	62		Dark brown, fine SAND, some Silt, trace(-) medium Sand, trace organic matter, wet, loose	1.4
	1635918	62		Top 11": As Above; Bottom 4": Brownish yellow, fine to coarse SAND, trace Silt, wet, loose	1.9
12	1635919	83		Light brownish yellow, medium(+) to fine SAND, trace coarse Sand, wet, loose	2.3
	1635920	83		Brownish yellow, fine to coarse SAND, wet, loose	2.7
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: SA-SB-92



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/17/97 <b>End Date</b> 06/17/97		<b>Boring ID</b>  <b>SA-SB-93</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635921	75		Brown, fine to very fine SAND, some Silt, trace organic matter, dry to slightly moist, loose	1.3
	1635922	75		Top 9": Yellowish brown, fine SAND, trace Silt, slightly moist, loose; Bottom 9": Dark yellowish brown, fine SAND, trace medium Sand, trace Silt, moist, moderately dense	1.4
4	1635923	75		Same as last 9"	1.5
	1635924	75		Top 2": Black asphalt; Bottom 16": Dark yellowish brown, fine SAND, some Silt, trace(-) medium Sand, moist to wet, loose	1.2
8	1635925	62		Dark yellowish brown, fine(+) to medium SAND, trace Silt, trace organic matter, wet, loose	1.7
	1635926	62		Top 5": Dark brown, SILT, little organic matter, wet, moderately dense; Middle 5": Same as 8-10'; Bottom 5": Same as top 5", wood pieces at bottom	1.7
12				No Recovery	
				No Recovery	
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: -SB-93



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/18/97 <b>End Date</b> 06/18/97		<b>Boring ID</b> SA-SB-94	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635933	50		Brown, fine SAND, little Silt, trace organic matter (top 12" ), trace fine and coarse Gravel, Cobble at bottom, dry to slightly moist, loose	1.6
	1635934				1.4
4	1635935	50		Brown, fine SAND, little Silt, slightly moist, loose	1.8
	1635936	50		Strong brown, fine SAND, little Silt, slightly moist to moist, moderately dense	1.6
8	1635937 1635938	92		Dark yellowish brown, fine SAND, little Silt, trace(-) medium Sand, trace organic matter, wet, loose	1.6
	1635939	92		Top 8": As Above; Middle 10": Dark brown to black, SILT with very fine Sand, trace organic matter, moist, moderately dense; Bottom 4": Greyish brown, fine to medium SAND, trace Silt, trace organic matter, wet, loose	1.7
12	1635940	62		Top 7": Black, SILT with very fine to fine Sand, little organic matter, wet, loose; Bottom 8": Greyish brown to light olive brown, fine to coarse SAND, wet, loose	1.3
	1635941	62		Same as last 8"	1.5
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed on: 1/20/1998

Boring No: SA-SB-94



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/18/97 <b>End Date</b> 06/18/97		<b>Boring ID</b> SA-SB-95	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635942	62		Yellowish brown, fine SAND, trace(+) Silt, trace organic matter, little process stone, fine and coarse Gravel (bottom 5"), dry to slightly moist, loose	6.0
	1635943				4.4
4	1635944	50		Reddish brown to brown, fine SAND, trace medium Sand, trace(-) coarse Sand, trace(-) fine and coarse Gravel, slightly moist, loose	9.8
	1635945				6.6
8	1635946	62		Top 10": As Above, moist, loose; Bottom 5": Dark brown to black, fine SAND, some Silt, trace medium Sand, trace organic matter, moist, loose	2.4
	1635947	62		Top 4": Same as last 5"; Middle 5": Black, SILT, some very fine to fine Sand, trace organic matter, moist, moderately dense; Bottom 6": Same as top 4", wet	1.4
12	1635948	96		Top 8": Same as last 6"; Bottom 15": Dark brown, fine to coarse(-) SAND, trace Silt, wet, loose	2.0
	1635949	96		Light olive brown, fine to coarse(-) SAND, wet, loose	1.3
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No.

SA-SB-95



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



**DRAFT**

Start	1
06/18	
End	1
06/18	
Log	
Drill	
Drill	
Sur	
Non	
Re	

**Boring ID**  
**SA-SB-96**

**Start Date**  
06/18/97  
**End Date**  
06/18/97

**Logged By:** J. Trzaski  
**Drilling Foreman:** J. Klapheke  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Printed On: 1/22/1998

Boring No: SA-SB-96

**Boring No: SA-SB-96**



**100 Northwest Drive, Plainville, Connecticut, 06062. Phone (203) 747-6181 FAX (203) 747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/20/97 <b>End Date</b> 06/20/97		<b>Boring ID</b> SA-SB-97	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\nabla$ <b>Depth:</b> At: Hours $\nabla$				<b>Logged By:</b> M. Busa <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1635959	96		Dark brown, fine(+) to medium SAND, trace(+) Silt, roots, loose, dry	10.3		
	1635960	96		Dark brown to dark yellowish brown, fine(+) to medium SAND, little(-) Silt, slightly moist, loose to slightly dense	11.3		
4	1635961	75		0-6": Dark brown, fine SAND, little Silt; Dark yellowish brown, fine to medium SAND, trace Silt, slightly moist, slightly dense; Dark yellowish brown, fine to medium(+) to coarse(-) SAND, trace fine Gravel, moist, slightly dense	11.1		
	1635962				9.3		
8	1635963	79		0-6": Same as above; 6-8": Dark brown, fine(+) to medium SAND, little(+) Silt; 8"-2': Brown, fine(+) to medium SAND, wet, fairly dense; 2-3': As Above; 3-4': Yellowish brown, fine to medium(+) to coarse SAND, wet, slightly dense	8.9		
	1635964				4.7		
12	1635965	100		Dark greyish brown, fine to medium to coarse(-) SAND, trace very fine Gravel, wet, fairly loose	4.0		
	1635966	100		Dark yellowish brown, fine(-) to medium(+) to coarse Sand, little(-) to trace fine Gravel, wet, fairly dense	1.5		
16				15-16': Same as above except no GRAVEL and fine to medium SAND only. Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On 1/22/1998

Boring No. A-SB-97



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 06/20/97 <b>End Date:</b> 06/20/97		<b>Boring ID:</b> <b>SA-SB-98</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> M. Busa <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635967	83		0-6": Dark brown, fine(+) to medium SAND, little Silt, dry, loose, roots; Strong brown, fine to medium SAND, dry, fairly loose	7.4
	1635968	83		Same as above	10.6
4	1635969	69		0-1': Strong brown, fine to medium SAND, loose, slightly damp; 1'-1'2": Very dark brown, fine(+) to medium SAND, lit,le Silt, dense, moist	10.6
	1635970	69		Light olive brown, fine to medium(+) SAND, trace coarse Sand, moist, slightly dense; 7-8': Brown, fine(+) to medium SAND, dense, moist	4.2
8				No Recovery	
				No Recovery	
12	1635971	100		12-13'8": Dark yellowish brown, fine to medium(+) to coarse(-) SAND, trace fine Gravel, moist, slightly dense;	1.2
	1635972			13'8"-14': Dark reddish brown, fine(+) to medium SAND, dense, moist; 14'-14'2": Greyish brown, fine to medium SAND, little(-) fine Gravel, wet, slightly dense	1.9
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Note: Extra 40ml sample taken of black sand at 14'-14'2" as sample 1635971

Printed On: 1/22/1998

Boring No: SA-SB-98



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/20/97 <b>End Date</b> 06/20/97		<b>Boring ID</b> SA-SB-99	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> M. Busa <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635973	81		Top 8": Dark reddish brown, fine to medium SAND, trace Silt, roots, dry, loose; 8"-2': Yellowish red, fine(+) to medium SAND, trace Silt, dry, slightly dense; 2-4': Yellowish brown, fine to medium SAND, dry to slightly moist	2.6
	1635974				5.4
4	1635975	81		0-6": Strong brown, fine(+) to medium SAND, trace Silt, moist, dense; 6"-2': Pale brown, fine to medium(+) to coarse SAND, slightly moist, slightly dense; As above to 7'; 7-8': Pale brown to brown, fine(+) to medium SAND, moist, dense	3.4
	1635976				6.5
8	1635977	81		8-9': Yellowish brown, fine(+) to medium SAND, trace Silt, moist, slightly dense; 9-10': Pale brown, fine(+) to medium SAND, moist, dense	3.5
	1635978	81		Brown, fine to medium(+) to coarse SAND, moist, slightly dense (more dense where Sand is fine)	2.8
12	1635979	77		Brown, fine to medium SAND, moist, slightly dense; 13.5'-14': Dark brown to black, medium to coarse(+) SAND, little fine Sand, wet, loose to slightly dense	0.0
	1635980	77		Dark yellowish brown, fine to medium(+) to coarse(-) SAND, wet, slightly dense	0.6
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/23/1998

Boring No. A-SB-99



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/23/97 <b>End Date</b> 06/23/97		<b>Boring ID</b>  <b>SA-SB-100</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours $\frac{1}{2}$ <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635996	75		Top 8": Yellowish brown, SILT with fine Sand, trace organic matter, dry, loose; Bottom 9": Very pale brown, fine SAND, trace medium Sand, slightly moist, loose	4.5
	1635997	75		Pale brown to yellowish brown, fine SAND, slightly moist, loose	6.0
4	1635998	88		Yellowish brown, fine(+) to medium SAND, moist, loose	5.8
	1635999 1636000	88		Top 2": Brown, very fine SAND, moist, loose; Bottom 16": Yellowish brown, fine(+) to medium SAND, moist to wet, loose	8.0
8	1636001	50		Dark yellowish brown, fine to coarse(-) SAND, trace Silt, wet, loose, drk brown staining bottom 6"	9.0
	1636002	50		As Above, no staining	5.8
12	1636003	75		Dark yellowish brown, fine to medium SAND, wet, loose	6.0
	1636004	75		Yellowish brown, fine to coarse SAND, wet, loose	7.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-100



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/23/97 <b>End Date</b> 06/23/97		<b>Boring ID</b> SA-SB-101	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636006	75		Yellowish brown, SILT, some fine Sand, trace organic matter, dry, loose	30.1
	1636007	75		Yellowish brown, fine SAND, dry to slightly moist, loose	30.5
4	1636008	62		Light yellowish brown, very fine SAND, slightly moist, loose	30.4
	1636009	62		Yellowish brown, fine SAND, some medium Sand (top 8"), moist, loose	30.3
8	1636010	67		Yellowish brown, fine to medium SAND, trace coarse Sand, dark brown staining bottom 6", moist to wet, loose	30.9
	1636011	67		Dark yellowish brown, fine to medium SAND, wet, loose	30.7
12	1636012	75		As Above	30.5
	1636013	75		As Above, dark brown staining top 6"	30.1
16				Bottom of Boring at 16'	
20					
24					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring No. SA-SB-101

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/23/97 <b>End Date</b> 06/23/97		<b>Boring ID</b>  <b>SA-SB-102</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636014	88		Top 10": Yellowish brown, SILT, little fine Sand, trace organic matter, dry, loose; Bottom 11": Light yellowish brown, fine to very fine SAND, trace Silt, dry to slightly moist, loose	27.2
	1636015	88		Top 8": Same as last 11"; Bottom 13": Strong brown, fine SAND, trace medium Sand, trace Silt, slightly moist, loose	31.0
4	1636016	58		Top 5": Same as last 13"; Bottom 9": Brown, fine SAND, trace medium Sand, trace Silt, moist, loose	38.7
	1636017	58		Same as last 9", moist to wet	22.2
8	1636018	75		Yellowish brown, fine to coarse SAND, trace Silt, wet, loose	21.1
	1636019	75		Light olive brown, fine to medium SAND, wet, loose	26.0
12	1636020	67		As Above	22.8
	1636021	67		Light olive brown to yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	23.4
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-102



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062; Phone(203)747-6181 FAX (203)747-8822

Project: Tank Trailer Storage Area						Start Date 11/12/96		Boring ID	
LEA Comm No: 68VC610								SA-SB-103	
Client: Pratt & Whitney						End Date 11/12/96			
Location: East Hartford, CT									
Drilling Contractor: LEA						Logged By: L. Bianchi			
Drilling Method: Hand Auger						Drilling Foreman: J. Sweeton			
Sampling Method: Bucket Auger						Drill Rig: Hand Auger			
Groundwater Observations:						Surface Elevation:			
Depth: NM		At:		Hours		Northing:			
Depth:		At:		Hours		Easting:			

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021142 1021143	100 100		Light brown, fine SAND, little Silt, moist, loose As Above	0.0 0.0
4				Bottom of Boring at 2.0'	
8					
12					
16					
20					
24					

Comments: Auger hole backfilled upon completion.





# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/24/97 <b>End Date</b> 06/24/97		<b>Boring ID</b> <b>SA-SB-104</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1635989	75		Strong brown to pale brown, fine to medium SAND, trace Silt (top 8"), trace(-) coarse Sand, dry to slightly moist, loose	1.7
	1635990				2.1
4	1635991 1636031	67		Light yelloish brown to yellowish brown, fine to coarse(-) SAND (top 24"), fine(+) to medium Sand (bottom 8"), slightly moist to moist, loose	3.8
	1636032				2.5
8	1636033	83		Yellowish brown, fine to coarse SAND, wet, loose, coarsening downward	3.8
	1636034				4.2
12	1636035	83		Strong brown to yellowish brown, fine to coarse SAND, fine to medium Sand (middle 10"), wet, loose	5.4
	1636036				4.8
16	Bottom of Boring at 16'				
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-104



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/24/97 <b>End Date</b> 06/24/97		<b>Boring ID</b> SA-SB-105	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636037	83		Top 28": Strong brown, SILT, some fine Sand, trace(-) coarse Gravel, trace medium Sand, dry to slightly moist, loose; Bottom 12": Dark yellowish brown, fine to medium SAND, trace(-) fine and coarse Gravel, trace Silt, slightly moist, loose, trace(-) coal pieces	3.1
	1636038				3.7
4	1636039	83		Pale brown, fine to medium SAND, trace Silt, moist, loose	3.1
	1636040	83		Top 10": Light yellowish brown, fine SAND, trace very fine Sand, moist, loose; Bottom 10": Yellowish brown, medium SAND, trace fine Sand, wet, loose	4.7
8	1636041	71		Yellowish brown, fine to coarse SAND, trace Silt, dark brown staining bottom 2", wet, loose	4.9
	1636042				4.2
12	1636043	83		As Above, dark brown staining top 8"	3.9
	1636044				4.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On 1/22/1998

Boring No. SA-SB-105



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 06/24/97 <b>End Date:</b> 06/24/97		<b>Boring ID</b> <b>SA-SB-106</b>																																																																			
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>																																																																					
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours		<b>Hours</b> <b>Hours</b>		<div style="font-size: 4em; transform: rotate(-45deg); opacity: 0.5; pointer-events: none;">DRAFT</div>																																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 10%;">Elevation/ Depth</th> <th colspan="3" style="width: 25%;">Sample Information</th> <th style="width: 55%;">Sample Description</th> <th rowspan="2" style="width: 10%;">(ppm)</th> </tr> <tr> <th style="width: 10%;">Sample No.</th> <th style="width: 10%;">Recovery (%)</th> <th style="width: 5%;">Blows /6"</th> <th style="width: 40%;">Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center;">1636045</td> <td style="text-align: center;">71</td> <td></td> <td rowspan="2">Top 15": Yellowish brown, fine(+) to medium SAND, some Silt, trace(-) organic matter, dry to slightly moist, loose; Bottom 19": Yellowish brown, fine(+) to medium SAND, slightly moist, loose</td> <td style="text-align: center;">2.5</td> </tr> <tr> <td style="text-align: center;">1636046</td> <td></td> <td></td> <td style="text-align: center;">2.5</td> </tr> <tr> <td rowspan="2" style="text-align: center; vertical-align: top;">4</td> <td style="text-align: center;">1636047</td> <td style="text-align: center;">67</td> <td></td> <td>Light yellowish brown, fine SAND, some very fine Sand, slightly moist to moist, loose</td> <td style="text-align: center;">4.1</td> </tr> <tr> <td style="text-align: center;">1636048</td> <td style="text-align: center;">67</td> <td></td> <td>Light yellowish brown, fine(+) to coarse SAND, moist, loose</td> <td style="text-align: center;">4.5</td> </tr> <tr> <td rowspan="2" style="text-align: center; vertical-align: top;">8</td> <td style="text-align: center;">1636049</td> <td style="text-align: center;">88</td> <td></td> <td rowspan="2">Yellowish brown, fine to coarse SAND, trace Silt, dark brown staining at 24-48", wet, loose</td> <td style="text-align: center;">4.9</td> </tr> <tr> <td style="text-align: center;">1636050</td> <td></td> <td></td> <td style="text-align: center;">4.3</td> </tr> <tr> <td rowspan="2" style="text-align: center; vertical-align: top;">12</td> <td style="text-align: center;">1636051</td> <td style="text-align: center;">62</td> <td></td> <td>Yellowish brown, fine to coarse SAND, trace fine Grael, wet, loose</td> <td style="text-align: center;">4.4</td> </tr> <tr> <td style="text-align: center;">1636052</td> <td style="text-align: center;">62</td> <td></td> <td>Yellowish brown, medium to fine SAND, wet, loose</td> <td style="text-align: center;">3.9</td> </tr> <tr> <td style="text-align: center; vertical-align: top;">16</td> <td></td> <td></td> <td></td> <td>Bottom of Boring at 16'</td> <td></td> </tr> <tr> <td style="text-align: center; vertical-align: top;">20</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center; vertical-align: top;">24</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Elevation/ Depth	Sample Information			Sample Description	(ppm)	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	0	1636045	71		Top 15": Yellowish brown, fine(+) to medium SAND, some Silt, trace(-) organic matter, dry to slightly moist, loose; Bottom 19": Yellowish brown, fine(+) to medium SAND, slightly moist, loose	2.5	1636046			2.5	4	1636047	67		Light yellowish brown, fine SAND, some very fine Sand, slightly moist to moist, loose	4.1	1636048	67		Light yellowish brown, fine(+) to coarse SAND, moist, loose	4.5	8	1636049	88		Yellowish brown, fine to coarse SAND, trace Silt, dark brown staining at 24-48", wet, loose	4.9	1636050			4.3	12	1636051	62		Yellowish brown, fine to coarse SAND, trace fine Grael, wet, loose	4.4	1636052	62		Yellowish brown, medium to fine SAND, wet, loose	3.9	16				Bottom of Boring at 16'		20						24	
Elevation/ Depth	Sample Information			Sample Description	(ppm)																																																																				
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness																																																																					
0	1636045	71		Top 15": Yellowish brown, fine(+) to medium SAND, some Silt, trace(-) organic matter, dry to slightly moist, loose; Bottom 19": Yellowish brown, fine(+) to medium SAND, slightly moist, loose	2.5																																																																				
	1636046				2.5																																																																				
4	1636047	67		Light yellowish brown, fine SAND, some very fine Sand, slightly moist to moist, loose	4.1																																																																				
	1636048	67		Light yellowish brown, fine(+) to coarse SAND, moist, loose	4.5																																																																				
8	1636049	88		Yellowish brown, fine to coarse SAND, trace Silt, dark brown staining at 24-48", wet, loose	4.9																																																																				
	1636050				4.3																																																																				
12	1636051	62		Yellowish brown, fine to coarse SAND, trace fine Grael, wet, loose	4.4																																																																				
	1636052	62		Yellowish brown, medium to fine SAND, wet, loose	3.9																																																																				
16				Bottom of Boring at 16'																																																																					
20																																																																									
24																																																																									
<b>Comments:</b>																																																																									

Printed On: 1/22/1998

Boring No: SA-SB-106



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/24/97 <b>End Date</b> 06/24/97		<b>Boring ID</b> SA-SB-107	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636053	88		Brown to strong brown, SILT, some fine Sand, trace organic matter, dry, loose to moderately dense	2.0
	1036054	88		Light yellowish brown, fine SAND, trace medium Sand, slightly moist, loose	1.3
4	1636055	58		Light yellowish brown, fine(+) to medium SAND, moist, loose	3.8
	1636056				2.9
8	1636057	75		Yellowish brown, fine to medium SAND, trace coarse Sand, iron staining bottom 8", wet, loose	3.6
	1636058				3.5
12	1636059	83		Yellowish brown to light olive brown, fine to coarse SAND, wet, loose	3.7
	1636060				3.7
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring N A-SB-107



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/24/97 <b>End Date</b> 06/24/97		<b>Boring ID</b> <b>SA-SB-108</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636061	79		Strong brown, SILT, some fine Sand, trace organic matter, dry to slightly moist, loose	1.5
	1636062	79		Light yellowish brown, fine(+) to medium SAND, slightly moist, loose	1.1
4	1636063	67		Top 10": Brown, very fine SAND; slightly moist, loose; Bottom 6": Light yellowish brown, fine SAND, slightly moist, loose, micaceous	2.6
	1636064	67		Same as last 6": slightly moist to moist	2.9
8	1636065	83		Yellowish brown, medium to fine SAND, trace coarse Sand, strong oxidation zone with dark brown and red staining from 20-40", wet, loose	2.5
	1636066				3.4
12	1636067	79		Yellowish brown, fine to coarse SAND, trace fine Gravel, red iron staining throughout, wet, loose	3.2
	1636068	79		Yellowish brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	2.9
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-108



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** South Airport Fill Area  
**LEA Comm No:** 68V7079  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
 06/24/97  
**End Date**  
 06/24/97

**Boring ID**  
**SA-SB-109**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** At: Hours  
**Depth:** At: Hours

**Logged By:** J. Trzaski  
**Drilling Foreman:** D. Brisson  
**Drill Rlg:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description  Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1636069	88		Yellowish brown, SILT, little fine Sand, trace organic matter, dry, moderately dense	3.0
	1636070	88		Brownish yellow, fine to medium SAND, dry to slightly moist, loose	2.5
4	1636071	71		Yellowish brown, fine to coarse SAND, slightly moist to moist, loose	2.3
	1636072	71		Light yellowish brown, fine to medium SAND, moist, loose	0.9
8	1636073	83		Yellowish brown, fine SAND (18") coarsening downward to fine to coarse SAND, wet, loose, dark brown staining at 34-38"	4.1
	1636074				4.3
12	1636075	58		Light olive brown, fine to medium SAND, trace Silt, trace coarse Sand, wet, loose	0.1
	1636076				3.9
16				Bottom of Boring at 16'	
20					
24					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/22/1998

Boring N

A-SB-109

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 06/24/97 <b>End Date:</b> 06/24/97		<b>Boring ID:</b> <b>SA-SB-110</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'		
0	1636077	88		Yellowish brown to dark brown, SILT with fine Sand, trace organic matter (top 12"), trace(-) process stone fine and coarse Gravel (12-16") dry to slightly moist, moderately dense	0.0
	1636078				0.0
4	1636079	75		Dark brown, SILT some fine Sand, trace medium Sand, trace organic matter, moist to wet, moderately dense to loose	0.0
	1636080				0.0
8	1636081	83		Top 10": As Above, wet, moderately dense; Bottom 10": Olive grey, medium to fine SAND, trace Silt, wet, loose	0.0
	1636082	83			0.0
12	1636083	83		Yellowish brown, very fine to medium SAND, trace coarse Sand, wet, loose	0.0
	1636084				0.0
16				Bottom of boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/22/1998

Boring No: SA-SB-110



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 06/25/97 <b>End Date</b> 06/25/97		<b>Boring ID</b> SA-SB-111	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636091	75		Brown to strong brown, SILT, some fine Sand, trace organic matter (top 8"), dry, loose, trace process stone fine and coarse Gravel	2.2
	1636092	75		Yellowish brown, fine SAND, dry to slightly moist, loose	2.0
4	1636093	62		Light yellowish brown, fine(+) to medium SAND, trace(-) coarse Sand, slightly moist to moist, loose, slight coarsening downward to fine to medium SAND (bottom 10")	1.9
	1636094				2.7
8	1636095 1636096	79		Yellowish brown, (fine(+)) to coarse SAND, wet, loose	1.5
	1636097				2.5
12	1636098	75		Dark yellowish brown, fine to coarse SAND, trace fine Gravel, wet, loose	2.1
	1636099	75		Dark brown staining at 24-30"	2.1
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No

-SB-111



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



**DRAFT**

**Boring ID**  
**SA-SB-112**

**Start Date**  
06/25/97  
**End Date**  
06/25/97

**Logged By:** J. Trzaski  
**Drilling Foreman:** D. Brisson  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Depth:	At:	Hours
Depth:	At:	Hours

Printed On: 1/22/1998

**Boring No: SA-SB-112**

**Comments:**

**100 Northwest Drive, Plainville, Connecticut, 06062, Phone (203) 747-6181 FAX (203) 747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/27/97 <b>End Date</b> 06/27/97		<b>Boring ID</b> SA-SB-113	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description  Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1636114 1636115	62		Grayish brown to yellowish brown, fine SAND, trace medium SAND, trace Silt (Top 10") trace organic matter (top 10"), dry to moist, loose, Cobble at 8"	0.2
	1636116				0.0
4	1636117	54		Yellowish brown, fine SAND, trace Silt, trace medium Sand, moist to wet, loose, wet at bottom	0.8
	1636118	54		16-22": Dark brown, fine SAND, little Silt, trace medium Sand, trace organic matter, moist, loose, wet at bottom	0.0
8	1636119	67		Yellowish brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	0.2
	1636120				0.0
12	1636121 1636122	50 50		Yellowish brown to greyish brown, fine to coarse SAND, trace fine gravel, wet, loose Slight coarsening downward	0.5 0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On 1/20/1998

Boring No. 4-SB-113



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Project: South Airport Fill Area LEA Comm No: 68V7079 Client: Pratt & Whitney East Hartford-JBK Location: P&W East Hartford, CT				Start Date 06/27/97 End Date 06/27/97		Boring ID SA-SB-114	
Drilling Contractor: LEA Drilling Method: Geoprobe Sampling Method: Macro Core Groundwater Observations: Depth: At: Hours Depth: At: Hours				Logged By: J. Trzaski Drilling Foreman: D. Brisson Drill Rig: Geoprobe 5400 Surface Elevation: Northing: Easting:			
Elevation/ Depth	Sample Information			Sample Description		(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1636123	75		Top 3": Reddish brown, fine to coarse SAND, trace Silt, some fine and coarse Gravel, moist, loose; Bottom 15": Yellowish brown, fine SAND, little Silt, trace medium and coarse Sand, moist, moderately dense		0.0	
	1636124	75		Brownish yellow, fine to medium SAND, trace(-) coarse Sand, slightly moist to moist, loose		0.4	
4	1636125	75		Yellowish brown, fine(+) to medium SAND, trace(-) coarse Sand, moist to wet, loose		0.3	
	1636126	75		Fining downward to fine SAND (last 6"), wet bottom 4"		0.0	
8	1636127	79		Yellowish brown, fine SAND, trace very fine Sand, trace medium Sand, wet, loose, coarsening downward to Yellowish brown, fine to coarse SAND, wet, loose		0.0	
	1636128					0.0	
12	1636129	92		Yellowish brown, fine to coarse SAND, wet, loose		0.7	
	1636130	92		As Above		0.0	
16				Bottom of Boring at 16'			
20							
24							
Comments:							

Printed On: 1/20/1998

**Boring No: SA-SB-114**

**LOUREIRO ENGINEERING ASSOCIATES, PC**

**100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 06/27/97 <b>End Date:</b> 06/27/97		<b>Boring ID:</b> <b>SA-SB-115</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636131	92		Top 8": Reddish brown, fine SAND, little fine and coarse Gravel, trace medium and coarse Sand, moist, loose; Bottom 14": Yellowish brown, fine SAND, some Silt, slightly moist, moderately dense	0.0
	1636132	92		Yellowish brown, fine(+) to medium SAND, slightly moist to moist, loose	0.0
4	1636133	58		Yellowish brown, fine(+) to medium SAND, fining downward to fine Sand (bottom 10"), moist to wet, loose, wet at bottom	0.0
	1636134	58			0.0
8	1636135	75		Yellowish brown, fine to very fine SAND, trace medium Sand, wet, loose	0.0
	1636136	75		Top 14": Yellowish brown, fine(+) to medium SAND, wet, loose, trace very fine Sand; Bottom 4": Yellowish brown, fine to coarse SAND, wet, loose	0.0
12	1636137	48		Yellowish brown to greyish brown, fine to coarse SAND, wet, loose	0.0
	1636138				0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/22/1998

Boring No. A-SB-115

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/30/97 <b>End Date</b> 06/30/97		<b>Boring ID</b> SA-SB-116	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\frac{17}{12}$ <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1636144	62		Strong brown to yellowish brown, fine SAND, some Silt, trace medium Sand, trace organic matter, dry to slightly moist, loose to moderately dense, 1": layer bituminous asphalt at 8"	1.3
	1636145				0.0
4	1636147	50		Light yellowish brown, fine SAND, trace medium Sand, grading to fine to medium Sand (bottom 10"), moist, loose	0.0
	1636148				0.1
8	1636149	67		Top 10": Light yellowish brown, fine to medium SAND, wet, loose; Middle 8": Yellowish brown, fine to very fine SAND, micaceous, wet, loose; Bottom 14": Yellowish brown, fine to coarse SAND, trace fine Gravel, wet, loose	0.0
	1636150				0.0
12	1636151	29		Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose	0.0
	1636152				5.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: SA-SB-116



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

• Page 1 of 1

Boring N      JA-SB-1117



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport Fill Area <b>LEA Comm No:</b> 68V7079 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford, CT				<b>Start Date</b> 06/30/97 <b>End Date</b> 06/30/97		<b>Boring ID</b> SA-SB-118	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1636161	25		Yellowish brown to drk yellowish brown, fine to very fine SAND, little Silt, trace organic matter, dry, loose	0.0
	no samp.				no re
4	1636163	58		Yellowish brown, fine(+) to medium SAND (top 10"), grading to medium to fine, trace coarse Sand (bottom 6"), slightly moist to moist, loose	0.0
	1636164				
8	1636165	79		Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	0.0
	1636166	79		Yellowish brown, fine to coarse(+) SAND, wet, loose, trace fine Gravel	0.0
12	1636167	83		As Above, little fine GRAVEL	0.0
	1636168	83		Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed on: 1/20/1998

Boring No: SA-SB-118



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Contractor Storage Area <b>LEA Comm No:</b> 68V7082 <b>Client:</b> P&W East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/1/97 <b>End Date</b> 7/1/97		<b>Boring ID</b> SA-SB-119	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637748	120		Top 8": Reddish brown to yellowish brown, fine SAND, some Silt, little fine and coarse gravel, trace bituminous asphalt, dry loose	21.5
	1637747	120			
4	1637749	120		Bottom 32": Yellowish brown to greyish brown, fine to medium SAND, trace(-) coarse Sand, dry to slightly moist, loose	32.0
8	1637750	200		Light Yellowish brown fine to medium SAND, slightly moist to moist, loose	27.7
12	1637751	200		Slight iron staining (bottom 2")	10.1
16	1637752	120		Yellowish brown to light olive brown, fine SAND, little medium Sand, trace very fine Sand, wet, loose	0.0
20	1637753	120			0.0
24	1637754	133		Top 24": Light olive brown, yellowish brown fine to coarse(+) SAND, trace fine Gravel (pea size), wet, loose	1.8
	1637755	133		Bottom 12": Yellowish brown medium(+) to fine SAND, trace coarse Sand, wet, loose	1.3
				Bottom of Boring 16'	

<b>Comments:</b>
------------------

Printed on 1/20/1998

Boring No. A-SB-119



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



## Page 1 of 1

Printed On: 1/20/1998

**Boring No: SA-SB-120**



**100 Northwest Drive, Plainville, Connecticut, 06062, Phone (203) 747-6181 FAX (203) 747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Contractor Storage Area <b>LEA Comm No:</b> 68V7082 <b>Client:</b> P&W East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/1/97 <b>End Date</b> 7/1/97		<b>Boring ID</b> <b>SA-SB-121</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours		Hours Hours					

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1637764	120		Top 6": Reddish brown, fine SAND, little medium and coarse Sand, trace fine and coarse Gravel	43.3
	1637765	120		Bottom 28": Yellowish brown to grayish brown, fine(+) to medium SAND, slightly moist, loose	29.9
4	1637766	160		Light yellowish brown, fine SAND, trace medium Sand, slightly moist to moist, loose	22.8
	1637767	160			0.0
8	1637768	133		Light olive brown fine SAND, trace medium Sand, trace very fine Sand, wet, loose	2.8
	1637769	133			0.0
12	1637770	133		Light olive brown, medium to fine SAND, trace coarse Sand, slight coarsening downward, wet, loose	0.0
	1637771	133			0.0
16				Bottom of Boring 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No. A-SB-121



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Contractor Storage Area <b>LEA Comm No:</b> 68V7082 <b>Client:</b> P&W East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 7/1/97 <b>End Date:</b> 7/1/97		<b>Boring ID:</b> <b>SA-SB-122</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: <b>Depth:</b> At:				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637774	109		Top 10": Reddish brown, fine SAND, little medium and coarse Sand, trace Silt, trace fine and coarse Gravel, dry, loose	25.5
	1637775	109		Bottom 34": Light yellowish brown fine(+) to medium SAND, dry to slightly moist, loose	23.7
4	1637776	133		Light yellowish brown fine SAND, slightly moist to wet, loose, wet at bottom	0.0
	1637777	133			0.0
8	1637778	114		Light olive brown fine(+) to medium SAND, trace coarse Sand, wet, loose	0.0
	1637779	114			0.0
12	1637780	141		Dark yellowish brown medium to fine SAND, trace coarse Sand, wet, loose	18.7
	1637781	141		Slight coarsening downward	20.4
16				Bottom of Boring 16'	
20					
24					

<b>Comments:</b>  
--------------------------

Printed On: 1/20/1998

Boring No: SA-SB-122



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Contractor Storage Area <b>LEA Comm No:</b> 68V7082 <b>Client:</b> P&W East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/1/97 <b>End Date</b> 7/1/97		<b>Boring ID</b> SA-SB-123	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637782	109		Top 6": Reddish brown, fine SAND, little medium and coarse Sand, trace fine and coarse Gravel, dry, loose. Bottom 16": Yellowish brown fine SAND, little silt, trace medium Sand, dry, loose	21.3
	1637783	109		Light yellowish brown fine SAND, trace medium Sand, slightly moist, loose	16.4
4	1637784	150		Light yellowish brown fine(+) to medium SAND, slightly moist to moist, loose	3.8
	1637785	150			1.6
8	1637786	133		Top 24": Yellowish fine(+) to medium SAND, coarsening downward to fine to coarse(+) Sand (Bottom 12") wet, loose	0.0
	1637787	133		Slight iron staining at 8"	0.0
12	1637788	141		Light olive brown fine to medium SAND, little coarse Sand, wet loose	0.0
	1637789	141			0.0
16				Bottom of Boring 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No. SA-SB-123



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 07/02/97 <b>End Date:</b> 07/02/97		<b>Boring ID:</b> <b>SA-SB-124</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours		Hours Hours		DRAFT			
Elevation/ Depth	Sample Information			Sample Description		(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1637079	79		Top 8": Pale brown, fine to medium SAND, trace Silt, trace organic matter, dry, loose; Bottom 11": Brown to orangish brown, fine SAND, little Silt, trace medium Sand, dry, moderately dense		4.2	
	1637080 1637081	79		Orangish brown to light yellowish brown, fine SAND, trace Silt; Top 8": trace medium SAND, slightly moist, moderately dense to loose		3.9	
4	1637082	62		Light yellowish brown, medium to fine SAND, moist to wet, loose, wet at 25"		5.1	
	1637083	62				5.1	
8	1637084	67		Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose, iron staining from 16-32"		2.8	
	1637085	67				4.5	
12	1637086	71		Orange brown to light olive brown, fine to medium SAND, trace coarse SAND, wet, loose		4.3	
	1637087	71				4.6	
16				Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On: 1/22/1998

Boring No: SA-SB-124



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone (203) 747-6181 FAX (203) 747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/02/97 <b>End Date</b> 07/02/97		<b>Boring ID</b> SA-SB-125	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours		Hours Hours		Hours Hours			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637088	92		Brown fine SAND, some Silt, trace medium Sand, trace organic matter, dry, loose; Bottom 6": Orange brown fine SAND, trace Silt, dry, moderately dense	17.7
	1637089	92		Top 4": As above last 6"; Bottom 18": Light yellowish brown fine SAND, trace medium Sand, slightly moist, loose	33.6
4	1637090	62		Light yellowish brown fine SAND, trace medium Sand, moist to wet, loose, iron staining at 16-22", wet at 20"	24.8
	1637091	62			27.7
8	1637092	75		Light yellowish brown to orange brown, fine to medium SAND, trace coarse Sand, wet, loose, trace coarse Sand	3.4
	1637093				2.8
12	1637094	62		Light olive brown, fine to medium SAND, wet, loose	3.5
	1637095	62		Orange brown, fine to coarse SAND, wet, loose	3.4
16				Bottom of Boring at 16'	
20					
24					

Comments:
-----------

Printed On: 1/22/1998

Boring N A-SB-125



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/02/97 <b>End Date</b> 07/02/97		<b>Boring ID</b> SA-SB-126	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637096	92		Brown to orange brown, fine SAND, some Silt, trace medium Sand, trace organic matter, dry to slightly moist, loose	2.5
	1637097	92		Light yellowish brown, fine SAND, trace medium Sand, slightly moist, loose	1.7
4	1637098	62		Light yellowish brown, fine to medium SAND, trace coarse Sand, moist to wet, loose	45.6
	1637099				0.0
8	1637100	83		Light olive brown to orange brown, fine(+) to medium SAND, trace coarse Sand, wet, loose, slight coarsening downward	0.0
	1637101	83			0.0
12	1637102	62		Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	1.0
	1637103				0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No: SA-SB-126



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/02/97 <b>End Date</b> 07/02/97		<b>Boring ID</b> SA-SB-127	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637104	54		Brown to yellowish brown, SILT with fine Sand, trace medium Sand, trace organic matter, dry to slightly moist, loose	0.0
	1637105	54		Yellowish brown, fine SAND, trace Silt, trace medium Sand, slightly moist, loose	0.2
4	1637106	17		Yellowish brown, fine to medium SAND, moist, loose, process stone Cobble lodged in tip	0.0
				No Recovery	
8	1637108	92		Light olive brown, fine SAND, wet, loose	0.0
	1637109	92		Yellowish brown, fine to medium SAND, trace coarse Sand, iron staining throughout, wet, loose	0.0
12	1637110	75		Orange brown, medium to fine SAND, trace coarse Sand, wet, loose	0.0
	1637111	75		Light olive brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	0.4
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring ID: SA-SB-127





# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/03/97 <b>End Date</b> 07/03/97		<b>Boring ID</b> SA-SB-130	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637128	81		6": Topsoil; 33": Brown to dark brown, fine(+) to coarse SAND, some Silt, trace fine Gravel, slightly moist, loose	19.3
	1637129				10.5
4	1637130	75		Brown to dark yellowish brown, fine to coarse SAND, trace(-) Silt, moist to wet (5'±), loose	17.2
	1637131				15.7
8	1637132	75		Brown, fine to coarse(+) SAND and fine GRAVEL, wet, slightly dense	13.0
	1637133				5.3
12	1637134	62		As Above	5.9
	1637135				8.9
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/22/1998

Boring No: SA-SB-130



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/03/97 <b>End Date</b> 07/03/97		<b>Boring ID</b> SA-SB-131	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637136	100		10": Top soil; 12": Brown, fine SAND, some fine to coarse Gravel, dry, loose; 26": Brown to dark brown, fine to medium SAND with Silt, moist, dense	0.0
	1637137				0.0
4	1637138	79		32": Brown to dark reddish brown, fine to medium SAND, trace coarse Sand, trace(-) fine Gravel, moist, loose; 6": Grey brown, fine to medium SAND, wet, loose	0.0
	1637139				0.0
8	1637140	75		Brown to grey brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, occasional iron staining	0.0
	1637141				0.0
12	1637142	79		As Above	0.0
	1637143				0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No. A-SB-131



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/03/97 <b>End Date</b> 07/03/97		<b>Boring ID</b> <b>SA-SB-132</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637144	90		8": Top soil; 10": Brown, fine SAND, dry, loose; 25": Brown to dark brown, fine to medium SAND with Silt, slightly moist to moist, slightly dense	0.0
	1637145				0.0
4	1637146	83		Brown to light greyish brown, fine to medium SAND, trace coarse Sand, moist, loose	0.0
	1637147				0.0
8	1637148	79		8": Brown, fine to medium SAND with Silt, trace fine Gravel, wet, slightly dense	0.0
	1637149				0.0
12	1637150	75		Grey brown, fine to coarse SAND and fine GRAVEL, wet, loose	0.0
	1637151				0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/22/1998

Boring No: SA-SB-132



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/07/97 <b>End Date</b> 07/07/97		<b>Boring ID</b>  <b>SA-SB-133</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637160	88		Top 6": Brown, fine SAND, some Silt, trace organic matter, dry, loose; Bottom 15": Brownish yellow, fine SAND, trace medium Sand, dry, loose	1.6
	1637161 1637162	88		Top 14": Same as last 15", slightly moist, moderately dense; Bottom 7": Yellowish brown, fine SAND, little Silt, trace medium Sand, slightly moist, moderately dense	1.5
4	1637163	58		Light yellowish, fine(+) to medium SAND, moist, loose, wet at bottom	2.3
	1637164	58			1.8
8	1637165	67		Top 6": Greyish brown, fine SAND, trace medium Sand, wet, loose; Bottom 26": Yellowish brown to greyish brown, fine to coarse SAND, wet, loose	1.9
	1637166				2.6
12	1637167	67		Greyish brown to yellowish brown, fine(+) to coarse SAND, trace fine Gravel (peasize) wet, loose, slight coarsening downward	2.3
	1637168				1.5
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No. SA-SB-133



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/07/97 <b>End Date</b> 07/07/97		<b>Boring ID</b> <b>SA-SB-134</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637169	83		Top 2": Organic debris; Middle 8": Brown, fine SAND, some Silt, trace organic matter, dry, loose	1.3
	1637170	83		Bottom 30": Yellowish brown, fine SAND, trace medium SAND, trace Silt, slightly moist, loose to moderately dense	1.3
4	1637171	58		Light yellowish brown, fine(+) to very fine SAND, trace medium SAND, slightly moist, loose	1.5
	1637172	58		Light yellowish brown, fine to medium SAND, moist, loose, coarsening downward to medium to fine SAND	1.1
8	1637173	62		Greyish brown, fine to coarse SAND, wet, loose	1.6
	1637174	62		Light olive brown, fine to medium SAND, trace(-) coarse SAND, wet, loose	1.7
12	1637175	54		Light olive brown to yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose	2.9
	1637176	54			3.1
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No: SA-SB-134



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/07/97 <b>End Date</b> 07/07/97		<b>Boring ID</b> <b>SA-SB-135</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637177	83		Top 10": Dark yellowish brown SILT and fine SAND, trace organic matter, dry loose; Bottom 11": Yellowish brown fine SAND, trace medium Sand, slightly moist, loose	2.5
	1637178	83		Top 10": Same as last 11"; Bottom 11": Brownish yellow, fine SAND, little Silt, trace medium Sand, slightly moist, medium dense	2.9
4	1637179	62		Top 10": Light yellowish brown, very fine to fine SAND, moist, loose; bottom 5": Light yellowish brown, fine SAND, trace medium SAND, moist, loose	2.4
	1637180	62		Same as last 5", moist to wet	1.7
8	1637181	79		Top 10": Brown fine SAND, trace medium Sand, wet, trace organic matter, top 4"; Bottom 5": Light olive brown, fine to medium SAND, trace coarse Sand, wet, loose	4.6
	1637182	79		Same as last 9"	3.0
12	1637183	62		As Above	3.0
	1637184	62		Yellowish brown, fine to coarse SAND, trace fine Gravel (pea size), wet, loose	4.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No. SA-SB-135



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/07/97 <b>End Date</b> 07/07/97		<b>Boring ID</b> <b>SA-SB-136</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637185	88		Top 8": Dark yellowish brown, fine SAND and SILT, trace organic matter, dry, loose; Bottom 13": Yellowish brown, fine SAND, trace medium SAND, slightly moist, loose	2.0
	1637186	88		Top 10": Same as last 13", cobble at 11"; Bottom 11": Brownish yellow, fine SAND, little Silt, trace medium SAND, slightly moist, moderately dense	2.5
4	1637187	58		Light yellowish brown, fine SAND, litle medium Sand, moist to wet, loose, wet at bottom	1.8
	1637188	58			1.9
8	1637189	83		Top 4": Brown, fine SAND, trace medium SAND, trace organic matter, wet, loose; Bottom 16": Light olive brown, fine to medium SAND, wet, loose	0.8
	1637190	83		As Above, trace coarse SAND	2.4
12	1637191	58		Yellowish brown, fine to medium SAND, trace coarse SAND, wet, loose, slightly coarsening downward	3.0
	1637192	58			3.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: SA-SB-136



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/08/97 <b>End Date</b> 07/08/97		<b>Boring ID</b> SA-SB-137	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637198	88		Brown to yellowish brown fine SAND, little Silt, trace medium Sand, trace organic matter, dry to slightly moist, loose	4.1
	1637199	88		Light olive brown, fine to very fine SAND, trace medium SAND, slightly moist to moist, loose	7.6
4	1637200	75		Top 24": Yellowish brown, fine(+) to medium SAND, trace coarse SAND, wet, loose; Bottom 12": Light olive brown, fine SAND, trace(-) medium SAND, micaceous, wet, loose	3.6
	1637202	75			2.2
8	1637203	100		Top 34": Light olive brown to yellowish brown, fine SAND, trace medium SAND, wet loose, iron staining 20 to 30"	1.1
	1637204	100		Bottom 14": Yellowish brown, fine to coarse SAND, wet, loose	2.4
12	1637205	58		Top 12": Reddish brown, fine to medium SAND, trace coarse SAND, wet, loose; Bottom 16": Grey CLAY, trace very fine Sand and Silt, moist, moderately dense, laminated	2.4
	1637206	58			1.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On 1/22/1998

Boring No. 4-SB-137



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/08/97 <b>End Date</b> 07/08/97		<b>Boring ID</b>  <b>SA-SB-138</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637207	75		Top 10": Brown fine SAND, some Silt, trace organic matter, trace medium SAND, dry, loose; Bottom 8": Brownish yellow, fine SAND, trace Silt, trace medium Sand, slightly moist, loose	3.9
	1637208	75		Brown to light olive brown, fine(+) to very fine SAND, trace medium SAND, slightly moist to moist, loose	3.3
4	1637209	75		Top 26": Yellowish brown, fine(+) to medium SAND, moist to wet, loose, iron staining at 22 to 26"; Bottom 10": Light olive brown, fine SAND, trace(-) medium SAND, wet, loose	2.2
	1637210	75			2.7
8	1637211	92		Top 14": Light olive brown, fine SAND, trace medium SAND, wet, loose; Middle 14": Yellowish brown, fine(+) to coarse SAND, wet, loose	1.6
	1637212	92		Bottom 16": Strong brown fine to medium SAND, wet, loose	2.0
12	1637213	96		Grey CLAY, little Silt and very fine Sand, wet, moderately dense, laminated, 6" layer of Silt at 10 to 16"	0.0
	1637214	96			0.4
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-138



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/08/97 <b>End Date</b> 07/08/97		<b>Boring ID</b> SA-SB-139	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637215	71		Top 8": Brown, fine SAND, some Silt, trace organic matter, dry, loose; Bottom 9": Brownish yellow fine SAND, trace Silt, trace medium Sand, slightly moist, loose	0.1
	1637216	71		Light yellowish brown, fine SAND, grading to fine to medium SAND, slightly moist to moist, loose	1.4
4	1637217	71		Yellowish brown, fine to medium SAND, trace coarse SAND, wet, loose, orange, iron staining at 24 to 34"	0.9
	1637218	71			1.7
8	1637219	92		Light olive brown, fine SAND, trace medium SAND, wet, loose	0.2
	1637220	92		As Above, grading to fine to medium SAND, trace coarse SAND, wet, loose	0.0
12	1637221	100		Top 3": Reddish brown fine to coarse SAND, wet, loose; Bottom 45": Grey CLAY, little Silt and very fine Sand, wet, moderately dense, laminated	0.2
	1637222	100			0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On 1/22/1998

Boring No. SA-SB-139



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/08/97 <b>End Date</b> 07/08/97		<b>Boring ID</b> SA-SB-140	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637223	88		Top 10": Brown, fine SAND, some Silt, trace organic matter, dry, loose; Middle 18": Brownish yellow, fine SAND, trace Silt, trace medium Sand, slightly moist to moist, moderately dense	3.5
	1637224	88		Bottom 14": Light yellowish brown, fine(+) to medium SAND, grading to fine SAND, moist, loose	3.8
4	1637225	58		Top 12": Greyish brown, fine to medium SAND, wet, loose; Middle 8": Greyish brown, fine to very fine SAND, wet, loose	3.3
	1637225	58		Bottom 8": Strong brown, fine to medium SAND, wet, loose	3.3
8	1637227	96		Yellowish brown to strong brown, fine(+) to coarse SAND, wet, loose, iron staining at 10 to 23"	2.4
	1637228	96		Light olive brown, fine to very fine SAND, grading to fine SAND, wet, loose	1.3
12	1637229	100		Top 10": Strong brown, fine(+) to medium SAND, wet, loose; Bottom 38": Grey CLAY, little Silt, very fine Sand, wet, moderately dense, laminated	0.7
	1637230	100			0.4
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No: SA-SB-140



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 07/08/97 <b>End Date:</b> 07/08/97		<b>Boring ID:</b> <b>SA-SB-141</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours							

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1637231	88		Top 8": Brownish yellow, fine SAND, little Silt, trace organic matter, dry, loose; Next 10": Brown, fine SAND, trace Silt, trace medium SAND, slightly moist, moderately dense	3.9
	1637232	88		Nest 12": Brownish yellow, fine SAND, trace Silt, trace medium Sand, moist, loose; Bottom 12": Light yellowish brown, fine SAND, trace medium SAND, moist, loose	3.9
4	1637233	62		Yellowish brown to greyish brown, fine(+) to medium SAND, trace coarse(-) Sand, wet, loose	4.8
	1637234	62		Greyish brown, fine to medium SAND, wet, loose, iron staining at 27 to 30"	5.2
8				No Recovery - point lodged in Macro tube	
				No Recovery - point lodged in Macro tube	
12	1637237	92		Strong brown, fine SAND, trace medium SAND, wet, loose, slightly coarsening downward	1.4
	1637238	92		Grey CLAY, little Silt and very fine Sand, wet, loose, laminated	1.1
16				Bottom of Boring 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring SA-SB-141



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/09/97 <b>End Date</b> 07/09/97		<b>Boring ID</b> <b>SA-SB-142</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1637243	79		10": Top soil; 28": brown, fine to medium SAND, dry to slightly moist, loose	1.8		
	1637244	79			1.9		
4	1637245	69		Brown to grey brown, medium to coarse SAND with fine Gravel, moist to wet, loose, becoming reddish brown, bottom 8"	1.3		
	1637246	69			1.0		
8	1637247	83		16": As Above; 24": Grey brown, fine to medium SAND, wet, loose	1.4		
	1637248	83			0.9		
12	1637249	83		20": Brown to red brown, fine to coarse SAND, trace fine Gravel, wet, loose	0.3		
	1637250	83			0.3		
16				Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On: 1/22/1998

Boring No: SA-SB-142



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/09/97 <b>End Date</b> 07/09/97		<b>Boring ID</b> SA-SB-143	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637251	83		6": Top soil; 8": Yellow brown, fine to medium SAND, slightly moist, loose	0.8
	1637252	83		26": Brown, fine(+) to medium, slightly moist to moist, loose	1.0
4	1637253	75		16": Light brown, fine to coarse(+) SAND, trace fine Gravel, wet, slightly dense	0.0
	1637254	75		2": Dark red brown, fine to coarse(+) SAND and fine Gravel, wet, loose; 18": reddish brown, fine to coarse SAND, trace fine Gravel, wet, loose	0.4
8	1637255	96		22": As Above; 24": Grey brown, fine to medium SAND, wet, loose	0.0
	1637256	96			0.0
12	1637257	100		22": As Above; fine to coarse SAND; 14": Reddish brown, fine to coarse SAND, wet, loose; 12": Grey, CLAY with SILT, trace fine Sand, laminated, wet, dense	0.0
	1637258	100			0.0
16				Bottom of Boring 16'	
20					
24					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/22/1998

Boring N

A-SB-143

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/09/97 <b>End Date</b> 07/09/97		<b>Boring ID</b> SA-SB-144	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1637259	83		8": Top soil; 32": Yellow brown, fine to medium SAND, slightly moist, loose	0.6		
	1637260	83			0.4		
4	1637261	75		Brown to grey brown, fine to coarse(+) SAND, some fine Gravel, wet, loose	0.6		
	1637262	75			0.8		
8	1637263	96		23": As Above; 23": Grey brown, fine to medium SAND, wet, loose	0.7		
	1637264				0.8		
12	1637265	83		18": Grey brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose	0.5		
	1637266	83		22": Yellowish brown, fine to medium SAND, wet, loose, occasional strong brown lenses, clay lense at tip(< 1/4")	0.4		
16	1637266			Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On: 1/22/1998

Boring No: SA-SB-144



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/09/97 <b>End Date</b> 07/09/97	<b>Boring ID</b> <b>SA-SB-145</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637267	83		8": Top soil; 32": Yellow brown, fine to medium SAND, slightly moist, loose	0.5
	1637268	83			0.3
4	1637269	67		Yellow brown, fine to coarse(+) SAND with fine GRAVEL, wet, loose, becoming grey at bottom 12", slight septic odor	0.0
	1637270 1637271	67 67			0.0 0.0
8	1637272	92		Grey brown to grey, fine to medium SAND, wet, loose, septic odor	0.0
	1637273	92			0.0
12	1637274	96		26": Grey to black, fine to coarse(+) SAND with fine GRAVEL, wet, loose, strong septic odor	0.5
	1637275	96		20": Strong brown, fine to coarse SAND, wet, loose, clay lense at tip	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No

-SB-145



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/10/97 <b>End Date</b> 07/10/97	<b>Boring ID</b> <b>SA-SB-146</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours					

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637278	75		10": Top soil; 2": Brown, coarse GRAVEL with fine to medium Sand, slightly moist, loose	1.4
	1637279	75		24": Brown, fine to medium SAND, slightly moist, loose	0.8
4	1637280	71		Brown to grey, fine to coarse SAND with fine GRAVEL, wet, loose	1.0
	1637281	71			0.7
8	1637282	83		Brown to grey brown, brown fine to coarse SAND, little fine Gravel, wet, loose, septic odor	0.8
	1637283	83			0.8
12	1637284	96		20": Grey fine GRAVEL, trace fine to coarse(+) Sand, wet, loose, septic odor	0.9
	1637285	96		24": Grey to black to reddish brown, fine to medium SAND, wet, slightly dense, septic odor; 4": Grey CLAY, some Silt, trace fine Sand, wet, dense, laminated	0.7
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/20/1998

Boring No: SA-SB-146



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/10/97 <b>End Date</b> 07/10/97		<b>Boring ID</b> SA-SB-147	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637286	88		10": Top soil; 32": Brown to yellow brown, fine to medium SAND, slightly moist to moist, loose	1.1
	1637287	88			0.2
4	1637288	75		Brown to dusky red, fine to coarse(+) SAND and fine GRAVEL, wet, loose	0.4
	1637289	75			0.2
8	1637290	50		Brown, fine to coarse SAND, wet, loose	0.3
	1637291	50			0.0
12	1637292	79		20": Reddish brown, fine GRAVEL, little fine to coarse(+) Sand, wet, loose	0.0
	1637293	79		17": Reddish brown, fine to medium SAND, wet, slightly dense; 1": Grey CLAY, trace fine Sand, wet, dense, laminated	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring N SA-SB-147



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/10/97 <b>End Date</b> 07/10/97		<b>Boring ID</b> <b>SA-SB-148</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637294	83		10": Top Soil; 30": Yellow brown, fine to medium SAND, slightly moist to moist, loose	0.0
	1637295	83			0.0
4	1637296	62		Brown to grey brown, fine to coarse SAND, little fine Gravel, wet, loose, occasional iron staining, occasional iron staining	0.0
	1637297	62			0.0
8	1637298	75		Brown to strong brown, fine to coarse SAND, trace fine Gravel, wet, loose	0.0
	1637299	75			0.0
12	1637300	96		42": Brown to dark reddish brown, fine to coarse SAND, with fine Gravel, wet, slightly dense	0.0
	1637301	96		4": Grey CLAY, trace Silt, trace fine Sand, wet, dense, laminated	0.0
16				Bottom of Boring at 16'	
20					
24					

Comments:
-----------

Printed On: 1/23/1998

Boring No: SA-SB-148



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/11/97 <b>End Date</b> 07/11/97		<b>Boring ID</b> SA-SB-149	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637304	75		Top 1": Organic debris and matter; Middle 6": Brown SILT with fine SAND, trace fine Gravel, trace organic matter, dry, loose	8.9
	1637305	75		Bottom 29": Yellowish Brown, fine SAND, trace medium SAND, trace Silt, slightly moist to moist, loose	6.2
4	1637306	58		Yellowish Brown, fine(+) to medium SAND, moist to wet, loose, occasional iron staining, wet at 14"	6.1
	1637307 1637308	58			4.1
8	1637309	96		Yellowish brown to orange brown, fine(+) to medium fine SAND, trace(-) medium SAND, wet, loose	3.8
	1637310	96			2.5
12	1637311	92		Top 1": As Above, light olive brown; Middle 22": Light olive brown to reddish brown, fine to medium SAND, trace coarse SAND, wet, loose	2.3
	1637312	92		Bottom 2": Grey CLAY, trace Silt and very fine Sand, wet, loose	1.5
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring ID: SA-SB-149



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney East Hartford <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/11/97 <b>End Date</b> 07/11/97		<b>Boring ID</b>  <b>SA-SB-150</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637313	88		Top 2": Organic, debris; Middle 12": Brown fine SAND and SILT, trace medium Sand, trace organic matter, dry, loose; Bottom 28": Yellowish brown, fine SAND, trace medium SAND, slightly moist, loose	4.5
	1637314	88			3.4
4	1637315	62		Yellowish brown, fine to medium SAND, trace(-) coarse SAND, moist to wet, loose, wet at 12"	2.6
	1637316	62			1.7
8	1637317	96		Light olive brown to yellowish brown, fine(+) to very fine SAND, trace medium SAND, wet, loose	2.4
	1637318	96		Orange brown, fine(+) to medium SAND, wet, loose	1.4
12	1637319	92		Top 1": As Above, light olive brown; Next 20": Light olive brown to strong brown, fine to medium SAND, trace coarse SAND, wet, loose	1.0
	1637320	92		Next 11": Light olive brown, fine(+) to medium SAND, wet, loose; Bottom 1": Grey varved CLAY, trace very fine Sand and Silt, wet, loose	0.7
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/20/1998

Boring No: SA-SB-150



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/14/97 <b>End Date</b> 07/14/97		<b>Boring ID</b> SA-SB-152	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638950	83		6": Topsoil; 34": Dark yellow brown, fine to medium SAND, slightly moist to moist, loose	1.3
	1638951				1.7
4	1638952	79		Brown to black, fine to coarse SAND, some fine Gravel, wet, slightly dense, slight septic odor	1.3
	1638953 1638954				1.6
8	1638955	76		Brown to grey brown, fine to coarse(+) SAND and fine GRAVEL, wet, slightly dense, septic odor	1.9
	1638956				1.6
12	1638957	79		26": Grey, fine to coarse SAND and fine GRAVEL, wet, loose, septic odor; 6": Yellow brown, fine to medium SAND, wet, slightly dense, thickly laminated; 6": Grey, CLAY, trace fine SAND, wet, dense, thickly laminated	1.6
	1638958				1.2
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 1/22/1998

Boring N A-SB-152



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/14/97 <b>End Date</b> 07/14/97		<b>Boring ID</b> <b>SA-SB-153</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638959	83		8": Topsoil; 32": Brown to dark yellow brown, fine to coarse SAND, slightly moist to wet, loose	1.8
	1638960				0.9
4	1638961	75		Brown, fine to coarse SAND, wet, trace fine Gravel, loose, becoming grey at bottom 12"	1.1
	1638962				1.7
8	1638963	75		Grey to brown, fine to coarse SAND and fine GRAVEL, wet, loose	1.1
	1638964				1.0
12	1638965	83		20": As Above; 10": Brown to strong brown, fine to medium SAND, wet, slightly dense; 10": Grey, CLAY, trace Silt, trace fine SAND, wet, dense, laminated	1.3
	1638966				1.1
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-153



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/17/97 <b>End Date</b> 07/17/97		<b>Boring ID</b> SA-SB-154	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <input checked="" type="checkbox"/> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1638793	96		Top 6": Red brown, fine to medium SAND, trace(+) coarse Sand and Gravel, dry, loose; Bottom 16: Dark brown, fine SAND, trace(+) medium Sand, trace(+) Silt, organics, dry, dense	0.0		
	1638794	96		Top 3": As Above, bottom 16"; Bottom 21": Light brown, fine SAND, trace(-) medium Sand, dry, dense			
4	1638795 1638796	83		Grey brown, fine SAND, moist, loose	0.0		
	1638797	83		Top 10": As Above; Bottom 10": Light brown, fine to medium SAND, moist, loose	0.0		
8	1638798	83		Light brown, fine SAND, trace(+) medium Sand, wet, loose	0.0		
	1638799	83		Light brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0.0		
12	1638800	83		Light brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0.0		
	1638801	83		As Above	0.0		
16				Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On: 2/6/1998

Boring No. -SB-154





# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/17/97 <b>End Date</b> 07/17/97		<b>Boring ID</b>  <b>SA-SB-155</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638802	96		Top 12": Light brown to red brown, coarse to fine SAND, trace Gravel, dry, loose; Middle 6": Brown, fine to very fine SAND, trace(-) Silt, trace organics, dry, moderately dense; Bottom 5": Strong brown to black, fine to very fine SAND, trace Silt, trace organic matter, trace Gravel, moist, moderately dense	0.0
	1638803	96			0.0
4	1638804	83		Top 8": As Above, bottom 5"; Bottom 15": Light brown, fine SAND, trace medium Sand, moist, loose Top 20": As Above	0.0
	1638805	83		Top 14": As Above; Bottom 6": Brown, fine to medium SAND, trace coarse Sand, moist, loose	0.0
8	1638806	71		As Above, Bottom 6", wet	0.0
	1638807	71		Top 10": As Above; Bottom 7": Brown, coarse to fine SAND, wet, loose	0.0
12	1638808	79		Brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0.0
	1638809	79		As Above	
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 2/6/1998

Boring No: SA-SB-155



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/17/97 <b>End Date</b> 07/17/97		<b>Boring ID</b> <b>SA-SB-156</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1638810	96		Top 12": Light brown to red brown, coarse to fine SAND, trace Gravel, dry, loose; Bottom 10": Brown, fine to medium SAND, trace Silt, trace organic matter, moist, moderately dense	0.0
	1638811	96		Top 18": As Above; Bottom 6": Light brown, fine SAND, trace medium Sand, moist, loose	0.0
4	1638812	62		As Above	0.0
	1638813	62		As Above	0.0
8	1638814	75		As Above	0.0
	1638815	75		Brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	0.0
12	1638816	83		As Above	0.0
	1638817	83		As Above	0.0
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>
------------------

Printed On: 2/6/1998

Boring No:

-SB-156



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 07/18/97 <b>End Date:</b> 07/18/97		<b>Boring ID:</b> <b>SA-SB-158</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northings:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638830	96		Top 8": Red brown, coarse to fine SAND, trace Gravel, moist, loose; Bottom 14": Light brown, fine SAND, little medium Sand, trace coarse Sand, moist, loose	0.0
	1638831	96		Light brown, fine SAND, little medium Sand, trace coarse Sand, moist, loose	0.0
4	1638832	83		As Above	0.0
	1638833 1638834	83		As Above	0.0
8	1638835	75		As Above, wet	0.0
	1638836	75		As Above, Bottom 4"	0.0
12	1638837	96		Top 6": As Above; Bottom 18": Light brown, coarse to medium SAND, little fine Sand, wet, loose	0.0
	1638838	96		As Above	
16				Bottom of Boring at 16'	
20					
24					

Comments:
-----------

Printed On: 1/26/1998

Boring No: SA-SB-158



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/18/97 <b>End Date</b> 07/18/97	<b>Boring ID</b> <b>SA-SB-159</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638839	92		Top 10": Red brown, coarse to fine SAND, trace Gravel, moist, loose; Bottom 10": Light brown, fine SAND, little medium Sand, trace coarse Sand, moist, loose	
	1638840	92		Top 20": As Above; Bottom 4": Light brown, fine to medium SAND, trace coarse Sand, moist, loose	
4	1638841	75		As Above	
	1638842	75		As Above	
8	1638843	83		As Above, wet	
	1638844	83		Top 20": As Above; Bottom 4": Brown, medium SAND, little coarse Sand, trace fine Sand, wet, loose	
12	1638845	96		As Above Bottom 4"	
	1638846	96		As Above	
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b>  
--------------------------

Printed On: 2/2/1998

Boring N A-SB-159



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv. <b>LEA Comm No:</b> 68V7068 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/18/97 <b>End Date</b> 07/18/97		<b>Boring ID</b> SA-SB-160	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1638847	96		Top 6": Red brown, coarse to fine SAND, trace Gravel, moist, loose; Bottom 16": Light brown, fine SAND, little medium Sand, trace coarse Sand, moist, loose	
	1638848	96		As Above, Bottom 16"	
4	1638849	62		As Above	
	1638850	62		As Above	
8	1638851	83		As Above, wet	
	1638852	83		As Above	
12	1638853	96		As Above	
	1638854	96		As Above	
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/26/1998

Boring No: SA-SB-160



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area Add. Inv.				<b>Start Date</b> 7/21/1997	<b>Boring ID</b>
<b>LEA Commission Number:</b> 68V7068.				<b>End Date</b> 7/21/1997	<b>SA-SB-161</b>
<b>Client:</b> Pratt & Whitney East Hartford-JBK					
<b>Location:</b> P&W East Hartford					
<b>Drilling Contractor:</b> LEA			<b>Logged by:</b> Joe Trzaski		
<b>Drilling Method:</b> Geoprobe			<b>Drilling Foreman:</b>		
<b>Sampling Method:</b> Macro Core			<b>Drill Rig:</b> Geoprobe 5400		
<b>Groundwater Observation</b>			<b>Surface Elevation:</b> 0.00		
<b>Depth:</b> 8.0	<b>at:</b> 11:20		<b>Northing:</b> 143,915.5		
<b>Depth:</b>	<b>at:</b> Hours &		<b>Easting:</b> 181,468.5		

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1638859	88		top 1" black bituminous asphalt next 2" reddish brown coarse GRAVEL, some fine SAND, trace coarse SAND, dry, loose remainder brownish yellow to dark brown fine SAND, little SILT, dry to slightly moist, loose	0.0
2	1638860	88		brownish yellow to dark brown fine SAND, little SILT, dry to slightly moist, loose	0.0
4	1638861	58		top 6" brownish yellow to dark brown fine SAND, little SILT, moist, loose middle 10" pale brown fine (+) to very fine SAND, trace SILT, moist, loose	0.0
6	1638862	58		bottom 12" yellowish brown fine SAND, trace medium SAND, trace SILT, moist, loose occasional asphalt pieces on outside of whole sample tube	0.0
8	1638863	75		dark yellowish brown fine SAND, little SILT, little medium SAND, trace organic matter, wet, moderately dense. 1" layer of black SILT at 12" in sample	0.0
10	1638865	75		dark yellowish brown fine SAND, little SILT, little medium SAND, trace organic matter, wet, moderately dense. 1" layer of black SILT at 28" in sample	0.0
12	1638866	83		top 24" greyish brown fine to medium SAND, trace coarse SAND, wet, loose	0.0
14 16	1638867	83		top 24" greyish brown fine to medium SAND, trace coarse SAND, wet, loose bottom 16" light olive brown fine to very fine SAND, wet, loose	0.0

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-161

**DRAFT**

Page 1 of 1

Project: Tank Trailer Storage Area Add. Inv.		Start Date 7/21/1997		Boring ID	
LEA Commission Number: 68V7068.		End Date 7/21/1997		SA-SB-162	
Client: Pratt & Whitney East Hartford-JBK					
Location: P&W East Hartford					
Drilling Contractor: LEA		Logged by: Joe Trzaski			
Drilling Method: Geoprobe		Drilling Foreman:			
Sampling Method: Macro Core		Drill Rig: Geoprobe 5400			
Groundwater Observation		Surface Elevation: 0.00			
Depth: 8.0 at: 13:20		Northing: 143,884.2			
Depth: at: Hours &		Easting: 181,467.2			

Depth	Sample Information			Soil Description	PID/FID ppm
	Sample No.	Recovery %	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	
0	1638868	83		top 1" black bituminous asphalt middle 4" red fine to coarse GRAVEL with fine to medium SAND, trace coarse SAND, dry, loose bottom 35" dark yellowish brown fine SAND, little SILT, trace medium SAND, dry to slightly moist, loose	0.0
2	1638869	83		dark yellowish brown fine SAND, little SILT, trace medium SAND, dry to slightly moist, loose	1.0
4	1638870	100		yellowish brown fine to very fine SAND, trace SILT, trace medium SAND, moist, loose	3.8
6	1638871	100		top 8" yellowish brown fine to very fine SAND, trace SILT, trace medium SAND, moist, loose Asphalt layer at 8" bottom 16" dark brown fine SAND, trace SILT, trace medium SAND, moist, loose	2.8
8	1638872	50		dark yellowish brown fine SAND, little SILT, little medium SAND, trace organic matter, wet, loose	1.8
10	1638873	50		top 6" dark yellowish brown fine SAND, little SILT, little medium SAND, trace organic matter, wet, loose bottom 6" brownish yellow medium to vine SAND, wet, loose	2.6
12	1638874	75		greyish brown medium to fine SAND, trace coarse SAND, grading to	1.6
14 16	1638875	75		light olive brown fine SAND, wet, loose	1.1

Comments:



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

**SA-SB-162**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/02/97 <b>End Date</b> 07/02/97		<b>Boring ID</b> SA-SB-128	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637112	88		Top 3": Organic debris; Middle 10": Brown, SILT and fine SAND, trace organic matter, trace medium Sand, dry, loose; Bottom 8": Brownish yellow, fine SAND, some Silt, trace medium Sand, slightly moist, moderately dense	0.7
	1637113	88		Top 10": Same as last 8": Bottom 12": Light yellowish brown, SAND, grading to fine to medium SAND, slightly moist, loose	0.2
4	1637114	62		Light yellowish brown, fine to medium SAND, moist to wet, loose, wet at 20"	1.2
	1637115	62			0.0
8	1637116	88		Light olive brown, fine SAND, wet, loose	0.1
	1637117	88		Yellowish brown, fine to medium SAND, iron staining throughout, wet, loose	0.3
12	1637118	67		Light olive brown, medium to fine SAND, trace coarse Sand, wet, loose	1.1
	1637119	67		Light olive brown, fine to medium SAND, wet, loose	0.8
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No. A-SB-128



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> SA Fire Training Area B <b>LEA Comm No:</b> 68V7081 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 07/02/97 <b>End Date</b> 07/02/97		<b>Boring ID</b>  <b>SA-SB-129</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe MC <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> GP-5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1637120	88		Top 2": Organic debris; Next 12": Brown, SILT and fine SAND, trace organic matter, trace medium Sand, dry, moderately dense; Bottom 7": Brownish yellow, fine SAND, some Silt, trace medium Sand, slightly moist, moderately dense	0.0
	1637121	88			0.0
4	1637122	67		Top 7": Same as last 7"; Bottom 14": Light yellowish brown, fine to very fine SAND, grading to fine to medium SAND, slightly moist, loose Light yellowish brown, fine to medium SAND, moist to wet, loose, wet at 20"	0.5
	1637123	67			0.4
8	1637124	83		As Above	0.7
	1637125	83		Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	0.2
12	1637126	62		Yellowish brown, fine to medium SAND, trace Silt, wet, loose, iron staining throughout	1.2
	1637127	62		Light olive brown, fine(+) to medium SAND, wet, loose	0.9
16				Bottom of Boring 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: SA-SB-129



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area				<b>Start Date</b> 2/ 6/1998	<b>Boring ID</b>  
<b>LEA Commission Number:</b> 68V7102.				<b>End Date</b> 2/ 6/1998	<b>SA-SB-163</b>
<b>Client:</b> Pratt & Whitney East Hartford-JBK					
<b>Location:</b> P&W East Hartford					
<b>Drilling Contractor:</b> Loureiro Engineering Associates			<b>Logged by:</b> Boris Tomicic		
<b>Drilling Method:</b> Direct Push			<b>Drilling Foreman:</b> Jeff Klapheke		
<b>Sampling Method:</b> Macro Core			<b>Drill Rig:</b> Geoprobe 5400		
<b>Groundwater Observation</b>			<b>Surface Elevation:</b> 0.00		
<b>Depth:</b> 7.0	<b>at:</b> 10:45		<b>Northing:</b> 0.0		
<b>Depth:</b>	<b>at:</b> Hours &		<b>Easting:</b> 0.0		

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1654011	71		0" - 2" bituminous 4" reddish brown COBBLE and PEBBLE, trace (+) medium Sand, dry, loose bottom 11" brown fine SAND, trace (+) medium Sand, dry, loose	0.0
2	1654012	71		brown medium SAND, some (+) fine Sand, dry, loose, poorly sorted	0.0
4	1654013	75		brown fine SAND, trace (+) medium Sand, dry, loose, 1" pebble lense at 6"	0.0
6	1654014	75		brown fine SAND, trace (+) medium Sand, moist, loose, poorly sorted 7' wet	0.0
8	1654015	92		0" - 3" reddish brown medium SAND, some (+) fine Sand, wet, moderately dense 3" - 22" brown fine SAND and medium SAND, wet, loose	0.0
10	1654016	92		brown fine SAND and medium SAND, wet, loose	0.0
12	1654017	58		greyish brown fine SAND, some (+) medium Sand, wet, loose, mica	0.3
14 16	1654018	58		greyish brown fine SAND, some (+) medium Sand, wet, loose, mica	0.0

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-163

**DRAFT**

Page 1 of 1

**LEA**

**SA-SB-164**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area <b>LEA Commission Number:</b> 68V7102. <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford				<b>Start Date</b> 2/ 6/1998  <b>End Date</b> 2/ 6/1998	<b>Boring ID</b>  <b>SA-SB-165</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observation</b> <b>Depth:</b> 7.0 <b>at:</b> 13:35 <b>Depth:</b> <b>at:</b> <b>Hours &amp;</b>				<b>Logged by:</b> Boris Tomicic <b>Drilling Foreman:</b> <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> 0.00 <b>Northing:</b> 0.0 <b>Easting:</b> 0.0	

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angular, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1654028	83		0" - 2" brown medium SAND, some (+) Cobbles and Pebbles, dry, dense, fibric matter 4" bituminous 6" - 20" brown fine SAND, trace (-) medium Sand, dry, loose, well sorted, Silt lense at 14"	0.0
2	1654029	83		brown fine SAND, some (-) medium Sand, dry, loose, poorly sorted	0.0
4	1654030	79		0" - 3" brown fine SAND, some (-) medium Sand, dry, loose, poorly sorted, black lense at bottom 3" - 19" greyish brown fine SAND, trace (-) medium Sand, moist, loose, poorly sorted	0.0
6	1654031	79		greyish brown medium SAND, some (-) fine Sand, moist, loose, poorly sorted 7' wet	0.0
8	1654032	69		greyish brown medium SAND, some (-) fine Sand, wet, loose, poorly sorted	0.0
10	1654033	69		greyish brown medium SAND, some (-) fine Sand, wet, loose, poorly sorted	0.0
12	1654034	63		greyish brown medium SAND with Pebbles, some (-) fine Sand, wet, loose, poorly sorted	0.0
14	1654035	63		greyish brown medium SAND, some (-) fine Sand, wet, loose, poorly sorted, dark lense at 15'	0.0
16					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-165

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area <b>LEA Commission Number:</b> 68V7102.				<b>Start Date</b> 2/ 6/1998	<b>Boring ID</b> SA-SB-166
<b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford				<b>End Date</b> 2/ 6/1998	
<b>Drilling Contractor:</b> Loureiro Engineering Associates <b>Drilling Method:</b> Direct Push <b>Sampling Method:</b> Macro Core <b>Groundwater Observation</b> <b>Depth:</b> 7.0 at: 14:45 <b>Depth:</b> at: Hours &			<b>Logged by:</b> Boris Tomicic <b>Drilling Foreman:</b> Jeff Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> 0.00 <b>Northing:</b> 0.0 <b>Easting:</b> 0.0		

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1654036	85		0" - 4" dark brown fine SAND, some (+) COBBLES and PEBBLES, moist, dense, fibric matter 4" reddish brown fine SAND, some (-) Silt, dry, moderately dense bottom [sic] brown fine SAND, some (-) medium Sand, dry, loose	0.0
2	1654037	85		brown fine SAND, some (-) medium Sand, dry, loose	0.0
4	1654038	69		brown fine SAND, some (-) Silt, some (-) medium Sand, dry, loose	0.0
6	1654039	69		greyish brown medium SAND, some (+) fine Sand, moist, loose, poorly sorted 7' wet	0.0
8	1654040	79		greyish brown medium SAND, some (+) fine Sand, wet, loose, poorly sorted	0.0
10	1654041	79		greyish brown medium SAND, some (+) fine Sand, wet, loose, poorly sorted, dark lense at 11.5'	0.0
12	1654042	65		greyish brown medium SAND, trace (+) fine Sand, some (-) Pebbles, wet, loose, poorly sorted	0.0
14 16	1654043	65		greyish brown medium SAND, trace (+) fine Sand, some (-) Pebbles, wet, loose, poorly sorted	0.0

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-166

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area		<b>Start Date</b>	<b>Boring ID</b>
<b>LEA Commission Number:</b> 68V7102.		2/ 6/1998	<b>SA-SB-167</b>
<b>Client:</b> Pratt & Whitney East Hartford-JBK		<b>End Date</b>	
<b>Location:</b> P&W East Hartford		2/ 6/1998	
<b>Drilling Contractor:</b> Loureiro Engineering Associates		<b>Logged by:</b> Boris Tomicic	
<b>Drilling Method:</b> Direct Push		<b>Drilling Foreman:</b> Jeff Klapheke	
<b>Sampling Method:</b> Macro Core		<b>Drill Rig:</b> Geoprobe 5400	
<b>Groundwater Observation</b>		<b>Surface Elevation:</b> 0.00	
<b>Depth:</b> 4.8	<b>at:</b> 11:05	<b>Northing:</b> 0.0	
<b>Depth:</b>	<b>at:</b>	<b>Easting:</b> 0.0	
		<b>Hours &amp;</b>	

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1654048	81		top 6" topsoil 6" - 20" dark red brown fine to coarse SAND, trace fine Gravel, slightly moist, loose	0.0
2	1654049	81		dark red brown fine to coarse SAND, trace fine Gravel, slightly moist, loose	0.0
4.0	1654050	83		0" - 8" red brown fine SAND, moist, loose 8" - 20" dark brown SAND, some fine Gravel, wet, loose 5.5' wet	0.0
6	1654051	83		dark brown SAND, some fine Gravel, wet, loose	0.0
8	1654052	96		0" - 6" brown coarse SAND, some fine Gravel, wet, loose 6" - 23" brown fine SAND, some fine Gravel, wet, loose	0.0
10	1654053	96		brown fine SAND, some fine Gravel, wet, loose	0.0
12	1654054	67		brown fine SAND, some fine Gravel, wet, loose	0.0
14	1654055	67		0" - 4" brown fine SAND, some fine Gravel, wet, loose 4" - 16" red brown coarse SAND, some fine Gravel, wet, loose	0.0
16					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-167

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area <b>LEA Commission Number:</b> 68V7102.				<b>Start Date</b> 2/ 6/1998	<b>Boring ID</b>  <b>SA-SB-168</b>
<b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford				<b>End Date</b> 2/ 6/1998	
<b>Drilling Contractor:</b> Loureiro Engineering Associates <b>Drilling Method:</b> Direct Push <b>Sampling Method:</b> Macro Core <b>Groundwater Observation</b>			<b>Logged by:</b> Boris Tomicic <b>Drilling Foreman:</b> Jeff Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> 0.00 <b>Northing:</b> 0.0 <b>Easting:</b> 0.0		
<b>Depth:</b> 4.7      at: 12:11 <b>Depth:</b> at:              Hours &					

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0	1654056	88		0" - 4" topsoil 4" - 21" yellow brown SAND, some fine Gravel, dry, loose, coarsening downward rock at 6", asphalt at 12"	0.0
2	1654057	88		yellow brown SAND, some fine Gravel, dry, loose	0.0
4	1654058	96		0" - 8" yellow brown SAND, some fine Gravel, slightly moist, loose 8" - 23" brown coarse SAND, some fine Gravel, some fine Sand, moist to wet, loose	0.0
6	1654059	96		brown coarse SAND, some fine Gravel, some fine Sand, very moist to wet, loose	0.0
8	1654060	92		brown coarse SAND, some fine Gravel, some fine Sand, wet, loose	3.5
10	1654061	92		brown coarse SAND, some fine Gravel, some fine Sand, wet, loose	0.0
12					

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-168

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area				<b>Start Date</b> 2/6/1998	<b>Boring ID</b>  																																																									
<b>LEA Commission Number:</b> 68V7102.				<b>End Date</b> 2/6/1998	<b>SA-SB-169</b>																																																									
<b>Client:</b> Pratt & Whitney East Hartford-JBK																																																														
<b>Location:</b> P&W East Hartford																																																														
<b>Drilling Contractor:</b> Loureiro Engineering Associates			<b>Logged by:</b> Boris Tomicic																																																											
<b>Drilling Method:</b> Direct Push			<b>Drilling Foreman:</b> Jeff Klapheke																																																											
<b>Sampling Method:</b> Macro Core			<b>Drill Rig:</b> Geoprobe 5400																																																											
<b>Groundwater Observation</b>			<b>Surface Elevation:</b> 0.00																																																											
<b>Depth:</b> 4.7	<b>at:</b> 13:42		<b>Northing:</b> 0.0																																																											
<b>Depth:</b>	<b>at:</b>		<b>Easting:</b> 0.0																																																											
<table border="1"> <thead> <tr> <th rowspan="2">Depth</th> <th colspan="3">Sample Information</th> <th rowspan="2">Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other</th> <th rowspan="2">PID/FID ppm</th> </tr> <tr> <th>Sample No.</th> <th>Recovery %</th> <th>Blows /6"</th> </tr> </thead> <tbody> <tr> <td>0      </td> <td>1654062</td> <td>92</td> <td></td> <td>0" - 4" brown to black fine SAND, organic matter 4" - 8" red brown fine SAND, little coarse Gravel, dry, loose 8" - 22" light brown fine SAND, little fine Gravel, dry, loose</td> <td>0.1</td> </tr> <tr> <td>2    </td> <td>1654063</td> <td>92</td> <td></td> <td>light brown fine SAND, little fine Gravel, dry, loose</td> <td>0.0</td> </tr> <tr> <td>4    </td> <td>1654064</td> <td>88</td> <td></td> <td>0" - 6" light brown fine SAND, little fine Gravel, dry, loose 6" - 7" red brown fine SAND, little coarse Gravel, dry, dense 7" - 21" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose</td> <td>0.0</td> </tr> <tr> <td>6    </td> <td>1654065</td> <td>88</td> <td></td> <td>grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose</td> <td>0.0</td> </tr> <tr> <td>8    </td> <td>1654066</td> <td>88</td> <td></td> <td>grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose</td> <td>0.0</td> </tr> <tr> <td>10    </td> <td>1654067</td> <td>88</td> <td></td> <td>0" - 6" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose 6" - 21" grey to dark brown coarse SAND, some fine Gravel, wet, loose</td> <td>0.0</td> </tr> <tr> <td>12    </td> <td>1654068</td> <td>88</td> <td></td> <td>grey to dark brown coarse SAND, some fine Gravel, wet, loose</td> <td>0.0</td> </tr> <tr> <td>14     16</td> <td>1654069</td> <td>88</td> <td></td> <td>grey to dark brown coarse SAND, some fine Gravel, wet, loose</td> <td>3.5</td> </tr> </tbody> </table>						Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm	Sample No.	Recovery %	Blows /6"	0     	1654062	92		0" - 4" brown to black fine SAND, organic matter 4" - 8" red brown fine SAND, little coarse Gravel, dry, loose 8" - 22" light brown fine SAND, little fine Gravel, dry, loose	0.1	2   	1654063	92		light brown fine SAND, little fine Gravel, dry, loose	0.0	4   	1654064	88		0" - 6" light brown fine SAND, little fine Gravel, dry, loose 6" - 7" red brown fine SAND, little coarse Gravel, dry, dense 7" - 21" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0	6   	1654065	88		grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0	8   	1654066	88		grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0	10   	1654067	88		0" - 6" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose 6" - 21" grey to dark brown coarse SAND, some fine Gravel, wet, loose	0.0	12   	1654068	88		grey to dark brown coarse SAND, some fine Gravel, wet, loose	0.0	14     16	1654069	88		grey to dark brown coarse SAND, some fine Gravel, wet, loose	3.5
Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm																																																									
	Sample No.	Recovery %	Blows /6"																																																											
0     	1654062	92		0" - 4" brown to black fine SAND, organic matter 4" - 8" red brown fine SAND, little coarse Gravel, dry, loose 8" - 22" light brown fine SAND, little fine Gravel, dry, loose	0.1																																																									
2   	1654063	92		light brown fine SAND, little fine Gravel, dry, loose	0.0																																																									
4   	1654064	88		0" - 6" light brown fine SAND, little fine Gravel, dry, loose 6" - 7" red brown fine SAND, little coarse Gravel, dry, dense 7" - 21" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0																																																									
6   	1654065	88		grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0																																																									
8   	1654066	88		grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose	0.0																																																									
10   	1654067	88		0" - 6" grey brown coarse SAND, little fine Gravel, slightly moist to wet, loose 6" - 21" grey to dark brown coarse SAND, some fine Gravel, wet, loose	0.0																																																									
12   	1654068	88		grey to dark brown coarse SAND, some fine Gravel, wet, loose	0.0																																																									
14     16	1654069	88		grey to dark brown coarse SAND, some fine Gravel, wet, loose	3.5																																																									
<b>Comments:</b>																																																														



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-169



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Airport: Former Storage Area				<b>Start Date</b> 2/ 6/1998	<b>Boring ID</b>  <b>SA-SB-170</b>
<b>LEA Commission Number:</b> 68V7102.				<b>End Date</b> 2/ 6/1998	
<b>Client:</b> Pratt & Whitney East Hartford-JBK					
<b>Location:</b> P&W East Hartford					
<b>Drilling Contractor:</b> Loureiro Engineering Associates				<b>Logged by:</b> Boris Tomicic	
<b>Drilling Method:</b> Direct Push				<b>Drilling Foreman:</b> Jeff Klapheke	
<b>Sampling Method:</b> Macro Core				<b>Drill Rig:</b> Geoprobe 5400	
<b>Groundwater Observation</b>				<b>Surface Elevation:</b> 0.00	
<b>Depth:</b> 7.0 at: 14:45 ,				<b>Northing:</b> 0.0	
<b>Depth:</b> at: Hours &				<b>Easting:</b> 0.0	

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0   1	1654070	88		0" - 4" reddish brown fine SAND, some (-) Pebbles, moist, dense (frost) 4" - 21" brown fine SAND, trace (+) medium Sand, dry, loose, poorly sorted	0.2
2   3	1654071	88		brown fine SAND, trace (+) medium Sand, dry, loose, poorly sorted	2.2
4   5	1654073	75		0" - 12" brown fine SAND, trace (-) medium Sand, dry, loose, poorly sorted 12" - 15" dark reddish brown medium SAND, some (-) fine Sand, trace (-) Pebbles, moist, loose 15" - 18" grey fine SAND, trace (-) medium Sand, moist, moderately dense	2.8
6   7	1654074	75		reddish brown fine SAND, some (+) medium Sand, moist, loose, poorly sorted 7" wet	0.0
8   9	1654075	79		reddish brown fine SAND, some (+) medium Sand, moist, loose, poorly sorted	4.3
10   11	1654076	79		reddish brown fine SAND, some (+) medium Sand, moist, loose, poorly sorted	3.9
12   13	1654077	90		brown medium SAND, some (-) fine Sand, wet, loose, poorly sorted	0.0
14   16	1654078	90		brown medium SAND, some (-) fine Sand, wet, loose, poorly sorted	3.5

**Comments:**



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut 06062

Phone (860) 747-6181 Fax (860) 747-8822

Printed on 06/17/98

SA-SB-170

## Page 1 of 1

**Boring No: SK-SB-22**



# GEOLOGIC BORING LOG

Page 1 of 1

Project: VPSA  
LEA Comm No: 68TR517  
Client: Pratt & Whitney  
Location: East Hartford, CT

Start Date  
7/23/96  
End Date  
7/23/96

Boring ID  
**SK-SB-23**

Drilling Contractor: LEA  
Drilling Method: Geoprobe  
Sampling Method: Macro core  
Groundwater Observations:  
Depth: NM At: Hours  
Depth: At: Hours

Logged By: M. Budnick  
Drilling Foreman: J. Klapheke  
Drill Rig: Geoprobe 5400  
Surface Elevation:  
Northing:  
Easting:

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016330	83		Reddish brown, fine to medium SAND, little fine Gravel, slightly moist to wet, loose	2.8
	1016331	83		As above	1.0
	1016332	83		4": As above; 8": Olive CLAY, wet	20.0
	1016333	83			75.0
4				Bottom of boring 4'	
8					
12					
16					
20					
24					

Comments: Borehole backfilled with bentonite chips upon completion.



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring N

SK-SB-23

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/23/96 <b>End Date</b> 7/23/96		<b>Boring ID</b>  <b>SK-SB-24</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016334	88		Reddish brown, fine to medium SAND, little fine Gravel, slightly moist to wet, loose	0.4
	1016335	88		As above	9.0
	1016336	88		As above	2.0
	1016337	88		As above	2.8
4				Bottom of boring at 4'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-24



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/23/96 <b>End Date</b> 7/23/96		<b>Boring ID</b> SK-SB-25	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016338	92		Reddish brown, fine to medium SAND, little fine Gravel, slightly moist to wet, loose	4.8
	1016339	92		As above	300.0
	1016340	92		As above	5.0
	1016341	92		As above	45.0
4	Bottom of boring at 4'				
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N

SK-SB-25



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/23/96 <b>End Date</b> 7/23/96		<b>Boring ID</b>  <b>SK-SB-26</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> M. Budnick <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016342	88		Reddish brown, fine to medium SAND, little fine Gravel, slightly moist, wet, loose	8.0
	1016343	88		As above	14.0
	1016344	88		As above	11.0
	1016345	88		4.5": As above; 6": Olive, CLAY, wet	600.0
4				Bottom of boring 4'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-26



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring N K-SB-27



**100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> <b>SK-SB-28</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016351	100		Reddish brown, fine to medium SAND, little fine Gravel, trace Silt, slightly moist, loose	40.0
	1016352	100		As above, moist	150.0
	1016353	100		As above	61.0
	1016354	100		As above, wet	41.0
4	Bottom of boring at 4.0'				
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-28



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> SK-SB-29	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1016355	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, slightly moist, loose	125		
	1016356				125		
	1016357	100		As above, moist	1000+		
	1016358	100		As above	810		
	1016359	100		Reddish brown, fine to medium SAND, wet, slightly dense	290		
4	Bottom of boring at 4.0'						
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring No. SK-SB-29

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 7/24/96 <b>End Date:</b> 7/24/96		<b>Boring ID:</b> <b>SK-SB-30</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016360	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, moist, loose	33
	1016361	100		Brown, fine(+) to medium SAND, some Silt, moist, slightly dense	19.0
	1016362	100		As above	6.5
	1016363	100		As above, wet	7.0
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-30



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-31</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016364	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, moist, loose	2.0
	1016365	100		Brown, fine to medium SAND, trace Silt, moist, slightly dense	1.4
	1016366	100		As above	17.0
	1016367	100		As above, wet	12.0
4	Bottom of boring at 4.0'				
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No SK-SB-31



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** VPSA  
**LEA Comm No:** 68TR517  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
 7/24/96  
**End Date**  
 7/24/96

**Boring ID**  
**SK-SB-32**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro core  
**Groundwater Observations:**  
**Depth:** NM  
**At:**  
**Hours**  
**At:**  
**Hours**

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Klapheke  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1016368	100		Yellowish brown, fine to coarse SAND, trace Silt, slightly moist, loose	3.2
	1016369	100		Reddish brown, fine(+) to coarse SAND, little Silt, moist, slightly dense	2.4
	1016370	100		As above	1.9
	1016371	100		Olive grey, SILT, trace fine Sand, wet, slightly dense	1.7
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/23/1998

Boring No: SK-SB-32

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-33</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016372	100		Dark reddish brown, fine(+) to coarse SAND, little fine Gravel, trace Silt, moist, loose	0.3
	1016373	100		Yellowish brown, SILT and fine SAND, moist, slightly dense	0.5
	1016374	100		As above	0.4
	1016375	100		As above, wet	0.5
4				Bottom of boring at 4'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No

-SB-33



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

**DRAFT**

Page 1 of 1

Printed On: 1/23/1998      Boring No: SK-SB-34



**100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> SK-SB-35	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\nabla$ <b>Depth:</b> At: Hours $\nabla$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1016380	60		Dark reddish brown, fine to coarse SAND, trace Silt, trace fine Gravel, slightly moist, loose	0.5		
	1016381	60		Yellowish brown, fine SAND, some Silt, moist, loose	0.2		
	1016382	60		Yellowish brown, fine to medium SAND, trace Silt, moist, slightly dense	1.4		
	1016383	60		Yellowish brown, fine to coarse SAND, trace Silt, wet, loose	0.9		
4	Bottom of boring at 4.0'						
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/23/1998

Boring N K-SB-35



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> <b>SK-SB-36</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016384	100		Yellowish brown, fine SAND and SILT, moist, slightly dense	0.1
	1016385	100		Brown, fine SAND, some Silt, moist, slightly dense	0.1
	1016386	100		As above	0.2
	1016387	100		As above, wet	0.1
4	Bottom of boring at 4.0'				
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring No: SK-SB-36



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-37</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016388			Reddish brown, fine(+) to coarse SAND, little Silt, slightly moist, loose	0.2
	1016389			Yellowish brown, fine to medium SAND, trace Silt, moist, slightly dense	0.3
	1016392			As above	0.2
	1016393			As above, wet	0.5
4				Bottom of boring at 4'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N K-SB-37



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/27/96 <b>End Date</b> 8/27/96		<b>Boring ID</b> <b>SK-SB-38</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017409	100		4": Concrete; 3": Subbase; 5": Dark reddish brown, fine to medium SAND and SILT, little coarse Sand, trace fine Gravel, moist, slightly dense; 11": Yellowish brown, fine to medium SAND, some Silt, moist, slightly dense	0.1
	1017410	100		As above	0.3
4	1017411	100		Dark brown, fine SAND, with Silt, some medium Sand, little coarse, very moist, slightly dense	2.6
	1017412	100		Dark red, fine to medium SAND, with Silt, some coarse Sand, little fine Gravel, trace coarse Gravel, moist, very dense	3.2
8	1017413	100		As above	33.0
	1017414	100		Dark brown, fine to medium SAND, some Silt, little coarse Sand, wet, slightly dense	72.0
12	1017415	100		Dark grey, fine to medium SAND, some Silt, little coarse Sand, wet, loose	31.0
	1017416	100		As above	7.6
16	1017417	100		Grey, medium to coarse SAND, some fine, trace Silt, trace(-) fine Gravel, wet, loose	1.0
	1017418	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
20				Bottom of boring at 20.0'	
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/16/1998

Boring No: SK-SB-38



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/16/96 <b>End Date</b> 7/16/96		<b>Boring ID</b> NK-SB-26	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016016	90		12": Black, fine SAND, some medium Sand, little Silt, trace coarse Sand, moist, loose, organics/root fragments; 11": Light reddish brown, fine to medium SAND, little medium Sand, trace(+) Silt, trace(-) coarse Sand, moist, loose	1.8
	1016017 1016018	90		Light yellowish brown, fine to medium SAND, some Silt, trace(+) coarse Sand, wet ( $\approx 3.0$ ), loose	5.4 5.9
4	1016019	100		As above	5.7
	1016020	100		Dark yellowish brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, trace(-) fine Gravel, wet, loose	5.2
8	1016021	100		Olive brown, CLAY (varved), with fine Sand, trace Silt, stiff, wet	2.5
	1016022	100		Olive gray, varved CLAY, trace Silt, trace(-) fine Sand, stiff, wet	5.1
12	1016023	100		As above	1.8
	1016024	100		As above	1.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No.

X-SB-26



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/15/96 <b>End Date</b> 7/15/96		<b>Boring ID</b> NK-SB-27	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016000	100		8": Black, fine SAND and SILT, some medium Sand, trace coarse Sand, moist, loose, organics; 15": Light reddish brown, fine SAND and medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, very moist, loose	5.2
	1016001	100		As above, strong hydrocarbon odor, wet at ≈3.0'	59.0
4	1016002	70		Yellowish brown, fine SAND, with medium Sand, some coarse Sand, little Silt, trace(-) fine Gravel, loose, wet	2.7
	1016003	70		As above	2.9
8	1016004	100		Olive brown, CLAY (varved), little Silt, trace fine Sand, stiff, wet	2.1
	1016005	100		Olive gray, varved CLAY, trace(+) Silt, trace(-) fine Sand, stiff, wet	3.4
12	1016006	100		As above	2.4
	1016007	100		As above	2.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-27



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/15/96 <b>End Date</b> 7/15/96		<b>Boring ID</b> NK-SB-28	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015991	100		7": Black, fine SAND and SILT, some medium Sand, trace coarse Sand, slightly moist, loose; 16": Light reddish brown, fine SAND and medium SAND, some coarse Sand, trace Silt, trace(-) fine Gravel, very moist, loose	5.0
	1015992 1015993	100		As above, hydrocarbon odor, wet at ≈ 3.0'	55.0 51.0
4	1015994	80		Yellowish brown, fine SAND and medium SAND, some coarse Sand, trace Silt, trace(-) fine Gravel, wet, loose	3.6
	1015995	80		As above	3.9
8	1015996	95		Olive brown, varved CLAY, some Silt, little fine Sand, stiff, wet	2.0
	1015997	95		Olive gray, CLAY, trace(+) Silt, trace(-) fine SAND, stiff, wet	1.9
12	1015998	100		As above	2.1
	1015999	100		As above	2.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N.

X-SB-28



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> SK-SB-29	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1016355	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, slightly moist, loose	125		
	1016356				125		
	1016357	100		As above, moist	1000+		
	1016358	100		As above	810		
	1016359	100		Reddish brown, fine to medium SAND, wet, slightly dense	290		
4				Bottom of boring at 4.0'			
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/23/1998

Boring No: SK-SB-29



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96	<b>Boring ID</b> <b>SK-SB-30</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016360	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, moist, loose	33
	1016361	100		Brown, fine(+) to medium SAND, some Silt, moist, slightly dense	19.0
	1016362	100		As above	6.5
	1016363	100		As above, wet	7.0
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring 1 SK-SB-30



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 7/24/96 <b>End Date:</b> 7/24/96		<b>Boring ID:</b> <b>SK-SB-31</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016364	100		Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, moist, loose	2.0
	1016365	100		Brown, fine to medium SAND, trace Silt, moist, slightly dense	1.4
	1016366	100		As above	17.0
	1016367	100		As above, wet	12.0
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/23/1998

Boring No: SK-SB-31



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-32</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016368	100		Yellowish brown, fine to coarse SAND, trace Silt, slightly moist, loose	3.2
	1016369	100		Reddish brown, fine(+) to coarse SAND, little Silt, moist, slightly dense	2.4
	1016370	100		As above	1.9
	1016371	100		Olive grey, SILT, trace fine Sand, wet, slightly dense	1.7
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring 1 SK-SB-32



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> <b>SK-SB-33</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{17}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016372	100		Dark reddish brown, fine(+) to coarse SAND, little fine Gravel, trace Silt, moist, loose	0.3
	1016373	100		Yellowish brown, SILT and fine SAND, moist, slightly dense	0.5
	1016374	100		As above	0.4
	1016375	100		As above, wet	0.5
4				Bottom of boring at 4'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-33



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-34</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016376	100		Dark reddish brown, fine(+) to coarse SAND, with Silt, trace fine Gravel, slightly moist, loose	0.9
	1016377	100		Yellowish brown, fine(+) to medium SAND, trace Silt, moist, loose	0.5
	1016378	100		As above	0.5
	1016379	100		As above, wet	0.2
4	Bottom of boring at 4.0'				
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring 1 SK-SB-34



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 7/24/96 <b>End Date:</b> 7/24/96		<b>Boring ID:</b> <b>SK-SB-35</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours		<div style="text-align: center;"> </div>					

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016380	60		Dark reddish brown, fine to coarse SAND, trace Silt, trace fine Gravel, slightly moist, loose	0.5
	1016381	60		Yellowish brown, fine SAND, some Silt, moist, loose	0.2
	1016382	60		Yellowish brown, fine to medium SAND, trace Silt, moist, slightly dense	1.4
	1016383	60		Yellowish brown, fine to coarse SAND, trace Silt, wet, loose	0.9
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-35



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b> SK-SB-36	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1016384	100		Yellowish brown, fine SAND and SILT, moist, slightly dense	0.1		
	1016385	100		Brown, fine SAND, some Silt, moist, slightly dense	0.1		
	1016386	100		As above	0.2		
	1016387	100		As above, wet	0.1		
4	Bottom of boring at 4.0'						
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/23/1998

Boring 1 SK-SB-36



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR517 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 7/24/96 <b>End Date</b> 7/24/96		<b>Boring ID</b>  <b>SK-SB-37</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1016388			Reddish brown, fine(+) to coarse SAND, little Silt, slightly moist, loose	0.2		
	1016389			Yellowish brown, fine to medium SAND, trace Silt, moist, slightly dense	0.3		
	1016392			As above	0.2		
	1016393			As above, wet	0.5		
4	Bottom of boring at 4'						
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/23/1998

Boring No: SK-SB-37



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

## GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/27/96 <b>End Date</b> 8/27/96		<b>Boring ID</b> SK-SB-38	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017409	100		4": Concrete; 3": Subbase; 5": Dark reddish brown, fine to medium SAND and SILT, little coarse Sand, trace fine Gravel, moist, slightly dense; 11": Yellowish brown, fine to medium SAND, some Silt, moist, slightly dense	0.1
	1017410	100		As above	0.3
4	1017411	100		Dark brown, fine SAND, with Silt, some medium Sand, little coarse, very moist, slightly dense	2.6
	1017412	100		Dark red, fine to medium SAND, with Silt, some coarse Sand, little fine Gravel, trace coarse Gravel, moist, very dense	3.2
8	1017413	100		As above	33.0
	1017414	100		Dark brown, fine to medium SAND, some Silt, little coarse Sand, wet, slightly dense	72.0
12	1017415	100		Dark grey, fine to medium SAND, some Silt, little coarse Sand, wet, loose	31.0
	1017416	100		As above	7.6
16	1017417	100		Grey, medium to coarse SAND, some fine, trace Silt, trace(-) fine Gravel, wet, loose	1.0
	1017418	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
20				Bottom of boring at 20.0'	
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/17/1998

Boring No:

SB-38



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/26/96 <b>End Date</b> 8/26/96		<b>Boring ID</b> <b>SK-SB-39</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017386	100		3.5": Concrete; 2.5": Subbase; 17": Yellowish brown, fine to medium SAND, trace fine Gravel, trace(-) Silt, moist, slightly dense	0.2
	1017387	100		Dark brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moist, slightly dense	0.4
4	1017388	100		6": As above; 17": Dark brown, fine to medium SAND, with coarse Sand, little fine Gravel, trace(+) Silt, trace(-) coarse Gravel, moist, very dense	14.0
	1017389	100		As above	85.0
8	1017390	100		10": As above; 13": Light grey, fine to medium SAND, trace Silt, very moist, loose	150.0
	1017391	100		Greyish brown, fine and medium SAND, little coarse Sand, trace Silt, wet, loose	12.0
12	1017392	100		Dark yellowish brown, medium SAND and fine SAND, little coarse Sand, trace Silt, wet, loose	1.2
	1017393	100		Dark yellowish brown, medium SAND and fine SAND, some coarse Sand, trace(+) fine Gravel, trace(-) Silt, wet, loose	0.2
16	1017394	100		8": As above; 15": Grey, varved CLAY, trace Silt, wet, stiff	0.1
	1017395	100		As above	0.1
20				Bottom of boring at 20.0'	
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/16/1998

Boring No: SK-SB-39



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/27/96 <b>End Date</b> 8/27/96	<b>Boring ID</b> <b>SK-SB-40</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017398	100		4": Concrete; 3": Subbase; 6": Dark reddish brown, fine to medium SAND, little coarse, trace Silt, trace(-) fine Gravel, moist, slightly dense; 10": Yellowish brown, As above	10.0
	1017399	100		As above	0.3
4	1017400	100		Dark reddish brown, fine to medium SAND, with Silt, some coarse Sand, little fine Gravel, trace coarse Gravel, moist, very dense	7.0
	1017401	100		As above	8.6
8	1017402	100		Dark brown, medium SAND and fine SAND, some Silt, little coarse Sand, trace fine Gravel, very moist, dense	80.0
	1017403	100		3": As above; 20": Dark grey, medium to coarse SAND, some fine, trace Silt, wet, loose	150.0
12	1017404 1017405	100		Dark grey, fine SAND, some Silt, trace medium Sand, slightly dense, wet	70.0
	1017406	100		As above	7.0
16	1017407	100		Yellowish grey, medium to coarse SAND, some fine Gravel, little fine Sand, trace Silt, wet, very loose	5.1
	1017408	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
20				Bottom of boring at 20.0'	
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/16/1998

Boring No:

SB-40



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/26/96 <b>End Date:</b> 8/26/96		<b>Boring ID:</b> <b>SK-SB-41</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017375	100		3.5": Concrete; 2.5": Subbase; 17": Brown, fine SAND and SILT, trace medium Sand, trace(-) fine Gravel, subbase, loose, moist	1.0
	1017376 1017377	100		Brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.2
4	1017378	100		12": As above; 11": Brown, fine to medium SAND, some coarse Sand, little fine Gravel, dense, very moist	4.2
	1017379	100		As above	58.0
8	1017380	100		9": As above; 15": Grey, medium to coarse SAND, little fine Sand, trace Silt, very moist	300.0
	1017381	100		4": As above; 19": Yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, slightly dense	35.0
12	1017382	83		As above	50.0
	1017383	83		As above	2.0
16	1017384	100		15": As above; 8": Olive grey, varved CLAY, trace Silt, wet, stiff	6.0
	1017385	100		As above	3.5
20				Bottom of boring at 20.0'	
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/16/1998

Boring No: SK-SB-41



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/19/96 <b>End Date</b> 8/19/96		<b>Boring ID</b> SK-SB-42	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017263	100		3": Concrete; 4": Subbase; 16": Brown, fine SAND, some medium Sand, little Silt, trace(+) coarse Sand, trace(-) fine Gravel, moist, moderately loose	0.0
	1017264	100		As above	1.0
4	1017265	100		Reddish brown, medium SAND, some fine Sand, coarse Sand, little fine Gravel, wet, very dense	1.2
	1017266	100		As above	1.6
8	1017267	100		6": As above; 17": Dark reddish brown, medium SAND, with coarse Sand, some fine Gravel, little fine Sand, trace Silt, wet, very dense	1.6
	1017268	100		Light reddish brown, medium SAND, with coarse Sand, little fine Sand, trace Silt, wet, slightly dense	5.2
12				Auger refusal at 12.0' Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 6/16/1998

Boring No:



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

SB-42

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/20/96 <b>End Date</b> 8/20/96		<b>Boring ID</b>  <b>SK-SB-43A</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017269			3.5": Concrete; 19.5": Brown, fine SAND, with Silt, moist, slightly loose	0.0
	1017270 1017271			Yellowish brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0 0.1
4	1017272			Reddish brown, fine to medium SAND, some coarse Sand, little Silt, trace(+) fine Gravel, very moist, dense	1.1
	1017273			As above	0.2
8				Bottom of boring at 7.0' (auger refusal on apparent concrete)	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 6/16/1998

Boring No: SK-SB-43A

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/28/96 <b>End Date</b> 8/28/96		<b>Boring ID</b> <b>SK-SB-43B</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0		100		4": Concrete; 3": Subbase, 8": Dark red, fine SAND and SILT, little medium Sand, moist, loose; 8": Dark yellowish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, moist, slightly dense	N/A
		100		As above	N/A
4		50		Dark reddish brown, fine to medium SAND, with Silt, some coarse Sand, little fine Gravel, trace coarse Gravel, moist, very dense	N/A
	1017441	50		As above	17.2
8				Bottom of boring at 8.0' refusal	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 6/16/1998

Boring No:

SB-43B

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/21/96 <b>End Date:</b> 8/21/96		<b>Boring ID:</b> <b>SK-SB-44</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1017303	75		3": Asphalt, 9": Subbase, augered - no recovery; 6": Dark reddish brown, fine to coarse SAND, with fine to medium Gravel, moist to wet, loose to moderately dense, subrounded Gravel	1.2		
	1017304	75		As Above	1.0		
4	1017305	96		6": Olive grey, fine SAND, trace Silt, wet, dense; 17": Olive grey to reddish brown, fine(+) to coarse SAND, trace Silt, slightly dense, wet	1.0		
	1017306	96		Olive grey to reddish brown, fine(+) to coarse SAND, trace Silt, slightly dense, wet, slight coarsening at bottom 6", wood fragments	1.3		
8	1017307	25		5": Reddish brown, fine to coarse(+) SAND, trace Silt, wet, loose; 1": Light greyish brown, fine SAND, trace Silt, wet, loose	1.0		
	1017308	25		As Above	0.9		
12	1017309	63		Olive grey, CLAY, trace fine Sand, trace Silt, wet, dense	0.9		
	1017310	63		As Above	0.9		
16				Bottom of boring at 16'			
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/22/1998

Boring No: SK-SB-44



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/21/96 <b>End Date:</b> 8/21/96		<b>Boring ID:</b> <b>SK-SB-45</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017294	78		3" pavement and 9" sub-base-augered; 7": Dark reddish brown, fine to coarse SAND, little fine Gravel, trace Silt, slightly moist, loose	0.1
	1017295	78		As Above	0.4
4	1017296	62		As above, moist to wet, occasional light grey brown, fine to coarse SAND lense	1.0
	1017297	63		As Above	0.5
8	1017298 1017300	63		As above, slight coarsening downwards, wet	0.9
	1017299	75		As Above	1.8
12	1017301	88		12": As above; 9": Olive grey, CLAY, trace Silt, trace fine Sand, dense, wet	0.2
	1017302	88		As Above	0.2
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-45



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/20/96 <b>End Date:</b> 8/20/96		<b>Boring ID:</b> <b>SK-SB-46</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC to 4'; LB from 4' <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017274	100		1": Asphalt; 22": Red, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, moist, dense	0.0
	1017275	100		21": As above; 2": Olive grey, fine SAND, little Silt, moist, slightly dense	0.1
4	1017276	100		Olive brown, fine SAND, with medium Sand, little coarse Sand, trace Silt, slightly dense, wet	0.1
	1017277	100		As above	0.0
8	1017278	100		As above	0.1
	1017281	100		Yellowish brown, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.2
12	1017282	100		12": As above; 12": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1017283	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-46



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/20/96 <b>End Date:</b> 8/20/96		<b>Boring ID:</b> <b>SK-SB-47</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017284	25		2": Asphalt; 4": Red, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, moist, dense	0.0
	1017285	25		As above	0.0
4	1017286	50		Olive grey, fine SAND, with medium Sand, little coarse Sand, trace Silt, slightly dense, wet	0.0
	1017287	50		As above	0.1
8	1017288	100		As above	0.1
	1017289	100		As above	0.0
12	1017290	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1017291	100		As Above	0.0
16				Bottom of boring at 15'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No. SK-SB-47



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/22/96 <b>End Date</b> 8/22/96		<b>Boring ID</b> <b>SK-SB-48</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1017338	75		Brown, SILT and fine SAND, slightly moist, loose, root fragments	0.0		
	1017339	75		Brown, fine SAND, some SILT, little medium Sand, trace(+) coarse Sand, trace(-) fine Gravel, moist, loose	0.0		
4	1017340	75		As above, very moist	0.1		
	1017341	75		Brown, fine to medium SAND, trace Silt, wet, loose	0.4		
8	1017342	50		Brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	0.3		
	1017343	50		As above	0.0		
12	1017344	100		Olive grey, varved CLAY, trace Silt	0.0		
	1017345	100		As above	0.0		
16				Bottom of boring at 15.0'			
20							
24							

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-48



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/22/96 <b>End Date</b> 8/22/96		<b>Boring ID</b> SK-SB-49	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017321	75		Brown, SILT and fine SAND, slightly moist, loose, root fragments	0.0
	1017322	75		Brown, fine SAND, some Silt, little medium Sand, trace(+) coarse Sand, trace(-) fine Gravel, moist, loose	0.0
4	1017323 1017324	75		As above, very moist	0.0 0.1
	1017325	75		Brown, fine to medium SAND, trace Silt, wet, loose	0.0
8	1017326	75		Brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	0.2
	1017327	75		Dark yellowish brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	0.0
12	1017328	100		12": Olive brown, fine to medium SAND, some coarse Sand, trace Silt, wet, loose; 11": Olive grey, varved CLAY, little Silt, wet, very stiff	0.0
	1017329	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N K-SB-49



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/22/96 <b>End Date</b> 8/22/96		<b>Boring ID</b> SK-SB-50	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour:</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017330	75		Brown, fine SAND and SILT, trace medium Sand, slightly moist, loose, root fragments	0.0
	1017331	75		As above, moist	0.0
4	1017332	75		Brown, fine to medium SAND, with Silt, trace coarse Sand, moist, loose	0.4
	1017333	75		As above, wet	7.5
8	1017334	75		Brown, medium SAND, with fine Sand, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.2
	1017335	75		Yellowish brown, medium to coarse Sand, with fine Sand, little fine Gravel, trace Silt, wet, very loose	0.0
12	1017336	100		Olive grey, varved CLAY, trace Silt, wet, very stiff	0.0
	1017337	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring No: SK-SB-50



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/21/96 <b>End Date:</b> 8/21/96		<b>Boring ID:</b> <b>SK-SB-51</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{17}{17}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1017311	88		8": Topsoil, dark reddish brown, rooted; 13": Dark reddish brown, fine(+) to medium SAND, little Silt, slightly moist to moist, slightly dense, paper fragments	0.1		
	1017312	88		As Above	0.3		
4	1017313	67		12": As above; moist to wet; 4": Light greyish brown, fine to coarse(+) SAND, little very fine Gravel, wet, loose	0.5		
	1017314	67		As Above	0.6		
8	1017315	63		10": As above; 5": Light grey brown, fine SAND, trace Silt, wet, slightly dense	5.5		
	1017316	63		5": As Above; 10": Reddish brown, fine to coarse(+) SAND, wet, loose	2.2		
12	1017317	88		As above	0.8		
	1017318	88		3": As Above; 18": Olive grey, CLAY, varved, wet, dense, dark reddish brown, very fine Sand and Silt on varves	2.9		
16				Bottom of boring at 16'			
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							


Printed On: 1/22/1998

Boring N K-SB-51



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/28/96 <b>End Date</b> 8/28/96		<b>Boring ID</b> SK-SB-52	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b>  <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1017419	100		Light brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	0.0		
	1017420				0.2		
4	1017421	100		As above	0.2		
	1017424	100		Dark brown, fine SAND and SILT, trace medium Sand, very moist, slightly dense	0.9		
8	1017425	100		Greyish brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose	2.5		
	1017426	100		Olive brown, medium SAND, with fine Sand, some coarse Sand, little Silt, wet, loose	3.1		
12	1017427	100		Yellowish grey, fine to medium SAND, some coarse Sand, little Silt, wet, loose	7.2		
	1017428	20		Yellowish grey, medium SAND and coarse SAND, some fine Sand, little fine Gravel, trace Silt, wet, very loose	0.3		
16	1017429	20		Olive grey, varved CLAY, trace Silt, wet, slightly stiff	0.1		
				Bottom of boring at 15.0'			
20							
24							

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-52



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/29/96 <b>End Date</b> 8/29/96	<b>Boring ID</b> SK-SB-53
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017444	100		10": Dark brown, fine SAND and SILT, little coarse Gravel, trace medium Sand, loose, moist; 13": Reddish brown, fine to medium SAND and coarse SAND, some fine Gravel, little coarse Gravel, trace fine Cobbles, dense, moist	
	1017445	100		15": As above; 7": Black, fine SAND, some medium Sand, little Silt, slightly dense, moist, hydrocarbon odor; 1": Reddish brown, fine to medium SAND and coarse SAND, some fine Gravel, little coarse Gravel, trace fine Cobbles, moist, dense	
4	1017446	100		17": As above; 6": Grey, fine SAND, little Silt, very moist, loose	
	1017447 1017448	100		Olive grey, fine to medium SAND, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	
8	1017449	50		Dark grey, fine SAND, trace Silt, wet, loose	
	1017450	50		12": As above; 11": Grey, fine to medium SAND, little Silt, trace coarse Sand, trace(-) fine Sand, loose, wet	
12	1017451	100		As above	
	1017452	100		6": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No. SK-SB-53



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 8/23/96 <b>End Date</b> 8/23/96		<b>Boring ID</b> SK-SB-54	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017348	75		Brown, fine SAND and SILT, trace(-) medium Sand, moist, loose, root fragments	0.0
	1017349	75		Brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.2
4	1017350	75		Reddish brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moist, loose	0.5
	1017351 1017352	75		Grey, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.2
8	1017353	100		As above	0.3
	1017354	100		Dark yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	4.5
12	1017355	100		Dark grey, medium to coarse SAND, with fine Sand, some Silt, loose, wet	0.2
	1017356	100		As above	0.0
16	Bottom of boring at 15.0' (varved CLAY at 15.0')				
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-54



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/23/96 <b>End Date:</b> 8/23/96		<b>Boring ID:</b> <b>SK-SB-55</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017365	100		Reddish brown, fine SAND, with Silt, slightly moist, loose, root fragments	0.0
	1017366	100		As above	0.0
4	1017367			11": As above; 12": Grey, fine SAND, little medium Sand, trace Silt, very moist, loose	0.0
	1017368			12": As above; 11": Light grey, fine SAND, little Silt, trace medium Sand, wet, loose	0.1
8	1017369			As above	0.2
	1017370			Dark yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.3
12	1017371			Dark grey, medium to coarse SAND, some fine Sand, little Silt, wet, loose	0.0
	1017372			As above	0.0
16				Bottom of boring at 15.0'; varved CLAY at $\approx$ 15.0' to 15.5'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring N K-SB-55



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/23/96 <b>End Date:</b> 8/23/96		<b>Boring ID:</b> <b>SK-SB-56</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <input type="checkbox"/> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017357	100		Light reddish brown, fine SAND and SILT, slightly moist, loose, root fragments	0.8
	1017358	100		Reddish brown, fine SAND, some Silt, trace(-) coarse Gravel at $\approx 3.75'$ , loose from 2-3.75', dense at 3.75-4.00', moist	0.7
4	1017359	100		10": As above; 13": Bluish grey, fine SAND, little medium Sand, trace Silt, very moist, loose	0.0
	1017360	100		12": As above; 11": Light greyish brown, fine SAND and medium SAND, some Silt, little coarse Sand, wet, loose	0.0
8	1017361			As above	0.1
	1017362			Dark yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.2
12	1017363			Dark grey, medium to coarse SAND, some fine Sand, little Silt, wet, loose	0.0
	1017364			As above	0.0
16				Bottom of boring at 15.0'; varved CLAY at $\approx 15.0'$ to 15.5'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-56



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR670 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/28/96 <b>End Date:</b> 8/28/96		<b>Boring ID:</b> <b>SK-SB-57</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017430	100		Light brown, fine SAND, some Silt, moist, loose, root fragments	0.0
	1017434	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose	0.0
4	1017435	100		6": As above; 17": Light bluish grey, SILT, with fine SAND, very moist, slightly stiff	1.8
	1017436	100		Light reddish grey, medium to coarse SAND, some fine Sand, little fine Gravel, trace Silt, wet, loose	0.6
8	1017437	25		Yellowish brown, fine SAND, with medium Sand, some Silt, little coarse Sand, wet, loose	0.8
	1017438	25		As above	0.0
12	1017439	100		As above	0.1
	1017440	100		6": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N

SK-SB-57



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/4/96 <b>End Date</b> 9/4/96		<b>Boring ID</b> SK-SB-58	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{17}{17}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017805	100		Dark olive grey, fine SAND and SILT, trace medium Sand, moist, loose, rip rap	0.6
	1017806	100		Light yellowish brown, fine SAND, little Silt, trace medium Sand, moist, very loose	0.0
-4	1017807	100		As above	7.4
	1017808	100		Dark olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel	0.1
-8	1017809 1017810	100		As above, wet	1.5 1.3
	1017811	100		Dark yellowish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0.0
-12	1017812	100		Olive grey, varved CLAY, little Silt, wet, slightly stiff	0.0
	1017813	100		As above	0.0
-16				Bottom of boring at 15.0'	
-20					
-24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-58



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 8/29/96 <b>End Date:</b> 8/29/96		<b>Boring ID:</b> <b>SK-SB-59</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017760	100		Dark brown, fine SAND, some Silt, little medium Sand, moist, loose	3.2
	1017761	100		Olive brown, fine SAND, some Silt, loose, moist	122.0
4	1017762	100		Light olive brown, fine to medium SAND, trace Silt, trace(-) coarse Sand, loose, moist	125.0
	1017763	100		As above, wet	0.2
8	1017764	100		As above	0.6
	1017765	100		6": As above; 5": Dark yellowish red, fine to medium SAND, trace Silt, wet, loose; 12": Light olive brown, fine to medium SAND, trace Silt, trace(-) coarse Sand, loose, wet	0.1
12	1017766	100		Grey, varved CLAY, some Silt, wet, slightly stiff	0.0
	1017767	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring 1  
SK-SB-59



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/3/96 <b>End Date:</b> 9/3/96		<b>Boring ID:</b> <b>SK-SB-60</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017770	74		Dark yellowish red, medium SAND, some fine, little coarse, trace fine Gravel, trace(-) Silt, moist, dense	2.0
	1017771	74		10": As above; 7": Olive brown, fine SAND, with Silt, trace(-) medium Sand, loose, moist	0.0
4	1017772 1017773	100		Yellowish brown, fine SAND, some medium Sand, little Silt, moist, loose	1.0
	1017774	100		Olive brown, medium SAND, with fine Sand, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	0.0
8	1017775	100		As above	13.0
	1017776	100		20": Dark olive brown, fine to medium SAND, some coarse, little Silt, wet, loose; 3": Olive grey, varved CLAY, trace Silt, wet, stiff	14.0
12	1017777	100		Olive grey, varved CLAY, trace Silt, wet, stiff	1.0
	1017778	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-60



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/4/96 <b>End Date</b> 9/4/96	<b>Boring ID</b> <b>SK-SB-61</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017822	100		Brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	3.6
	1017823	100		Light pinkish brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.1
4	1017824	100		Yellowish brown, fine SAND, some Silt, trace medium Sand, moist, loose	1.3
	1017825	100		Dark olive brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, moist, loose	40.0
8	1017826	22		As above, wet	4.2
	1017827	22		As above	3.9
12	1017828	100		Olive grey, varved CLAY, trace(+) Silt, wet, stiff	0.1
	1017829	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N

K-SB-61



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/3/96 <b>End Date</b> 9/3/96		<b>Boring ID</b> SK-SB-62	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017779	43		5": Dark red, medium SAND, with fine Sand, some coarse Sand, little Silt, trace fine Gravel, moist, dense; 5": Yellowish grey, fine SAND and SILT, trace(-) medium Sand, moist, slightly loose*	0.0
	1017780	43		10": Light greyish brown, fine SAND, little Silt, moist, loose*	2.6
4	1017781	100		As above	0.4
	1017782	100		Dark olive grey, fine to medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	12.0
8	1017783	100		Dark yellowish brown, fine to medium SAND, some coarse Sand, trace(+) fine Gravel, trace(-) Silt, wet, loose	7.1
	1017784	100		As above; 3": Olive grey, varved CLAY, trace Silt, wet, stiff	0.1
12	1017785	100		As above	0.0
	1017786	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* augered ≈ 15" through rock/gravel layer

Printed On: 1/22/1998

Boring No: SK-SB-62



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/3/96 <b>End Date:</b> 9/3/96		<b>Boring ID:</b> <b>SK-SB-63</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017787	74		7": Dark red, medium SAND, with fine Sand, some coarse Sand, little Silt, trace fine Gravel, moist, dense; 10": Light pinkish grey, fine to medium SAND, trace coarse Sand, trace(-) Silt, moist, loose	1.4
	1017788	74		As above	1.4
4	1017789	100		Light olive grey, fine to medium SAND, little coarse Sand, trace Silt, very moist, loose	0.4
	1017790	100		Dark reddish yellow, fine to medium SAND, some Silt, little coarse Sand, wet, loose	0.1
8	1017791	100		Light pinkish grey, fine SAND and SILT, wet, loose	1.1
	1017792	100		Light pinkish grey, fine SAND and SILT, some medium Sand, trace coarse Sand, wet, loose; 2" Olive grey, varved CLAY, trace Silt, wet, stiff	125.0
12	1017793	100		As above	1.0
	1017794	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No.

SK-SB-63



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/3/96 <b>End Date</b> 9/3/96		<b>Boring ID</b> SK-SB-64	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017795	43		Dark brown, fine SAND, with medium Sand, some Silt, trace coarse Sand, moist, slightly dense	0.3
	1017796	43		Light yellowish brown, fine SAND, with Silt, trace medium Sand, moist, loose	0.0
4	1017797	100		Light olive grey, fine SAND, with Silt, trace medium Sand, moist, loose	3.8
	1017798	100		Olive brown, fine to medium SAND, some Silt, trace(-) coarse Sand, wet, loose	12.0
8	1017799	100		Olive brown, fine to medium SAND, with coarse Sand, little Silt, trace fine Gravel, wet, loose	0.3
	1017800	100		20": Dark yellowish brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose; 3": Olive grey, varved CLAY, trace Silt, stiff, wet	0.1
12				No recovery	
				No recovery	
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-64



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/5/96 <b>End Date:</b> 9/5/96		<b>Boring ID:</b> <b>SK-SB-65</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017850	100		Dark brown, fine SAND and SILT, trace medium Sand, slightly moist, loose, root fragments	0.0
	1017851	100		Light pinkish grey, fine SAND, some Silt, trace medium Sand, moist, loose	0.0
4	1017858	100		Grey, fine SAND, some Silt, trace medium Sand, moist, loose	0.8
	1017859	100		6": As above; 17": Olive brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	40.0
8	1017860	100		As above	52.0
	1017861	100		17": Dark yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, wet, very loose; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12	1017862	100		As above	0.0
	1017863	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring ID: SK-SB-65



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/5/96 <b>End Date:</b> 9/5/96		<b>Boring ID:</b> <b>SK-SB-66</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017842	100		Brown to light brown, fine SAND and SILT, trace medium Sand, slightly moist, loose, root fragments	1.7
	1017843	100		As above	0.0
4	1017844	100		Light greyish brown, fine to medium SAND, little coarse Sand, trace Silt, moist, loose	2.7
	1017845	100		As above, wet	16.0
8	1017846	100		Dark yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, wet, very loose	11.0
	1017847	100		15": As above; 8": Olive grey, varved CLAY, trace Silt, wet, stiff	0.1
12	1017848	100		As above	0.0
	1017049	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-66



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/5/96 <b>End Date:</b> 9/5/96		<b>Boring ID:</b> <b>SK-SB-67</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017833	78		Light brown, fine SAND and SILT, trace medium Sand, slightly moist, very loose, root fragments	0.0
	1017834	78		As above	0.0
4	1017835 1017836	100		Light olive brown, fine SAND, some Silt, little medium Sand, trace(+) coarse Sand, trace(-) fine Gravel, moist, loose	0.1
	1017837	100		As above, wet at ≈ 7.0'	11.0
8	1017838	100		Grey, fine to medium SAND, little Silt, trace coarse Sand, wet, very loose	1.1
	1017839	100		Dark yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	1.0
12	1017840	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1017841	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/23/1998

Boring N K-SB-67



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/4/96 <b>End Date:</b> 9/4/96		<b>Boring ID:</b> <b>SK-SB-68</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017814	100		Dark olive grey, fine SAND and SILT, trace medium Sand, moist, loose	0.0
	1017815	100		Light brown, fine SAND, little Silt, trace medium Sand, moist, very loose	0.0
4	1017816	100		As above	1.7
	1017817	100		Dark olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel	0.2
8	1017818	100		As above, wet	0.4
	1017819	100		Dark yellowish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0.3
12	1017820	100		Olive grey, varved CLAY, little Silt, wet, slightly stiff	0.0
	1017821	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-68



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR671 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/6/96 <b>End Date</b> 9/6/96		<b>Boring ID</b> SK-SB-69	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017883	100		Light brown, fine SAND and SILT, trace medium sand, moist, loose, root fragments	18.0
	1017884 1017885	100		As above	20.0
4	1017886	100		6": Brown, CLAY, little Silt, moist, very dense; 17": Brown, fine SAND, some Silt, trace medium Sand, moist, loose	1000
	1017887	100		Olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, very moist, loose	110.0
8	1017888	50		Olive brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	79.0
	1017889	50		As above	29.0
12	1017890	100		Olive grey, varved CLAY, trace Silt, wet, stiff	2.1
	1017891	100		As above	1.3
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N

K-SB-69



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/6/96 <b>End Date</b> 9/6/96		<b>Boring ID</b>  <b>SK-SB-70</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{17}{20}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{17}{20}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017915	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	0.3
	1017916	100		10": As above; 13": Olive grey, fine SAND and SILT, trace medium Sand, moist, dense	0.1
4	1017917	100		17": Light brown, fine SAND, some medium Sand, little Silt, moist, slightly dense; 6": Black, fine to medium SAND, little Silt, moist, dense, organics	7.0
	1017918 1017919	100		12": Olive grey, fine SAND, some Silt, trace medium Sand, moist, dense; 13": Olive brown fine to medium SAND, some Silt, trace coarse Sand, very moist, loose	0.8
8	1017920	100		Yellowish brown, fine to medium SAND, little coarse Sand, trace Silt, very moist, loose	1.2
	1017921	100		As above; wet	0.3
12	1017922	100		As above	0.2
	1017923	100		As above	0.0
16				Bottom of boring at 15.0' *	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion  
 \*Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'

Printed On: 1/22/1998

Boring No: SK-SB-70





# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/10/96 <b>End Date:</b> 9/10/96		<b>Boring ID:</b> <b>SK-SB-71</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017926	100		Dark brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments	1.0
	1017927	100		18": As above; 5": Black, fine SAND, some Silt, moist, dense, strong organic odor	58.0
4	1017928	100		Grey/olive grey fine SAND, little coarse Sand, trace(+) fine Gravel, trace(-) Silt, wet at $\approx 7.0'$ , loose	24.0
	1017929 1017930	100		Brown, fine to medium SAND, little coarse Sand, trace(+) fine Gravel, trace(-) Silt, wet at $\approx 7.0'$ , loose	0.2
8	1017931	50		As above	0.3
	1017932	50		As above	0.1
12	1017933	100		As above	3.4
	1017934	100		10": As above; 2": Olive grey, varved CLAY, trace Silt, wet, dense	0.1
16				Bottom of boring 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring No. K-SB-71



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

DRAFT

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT		<b>Start Date</b> 9/10/96 <b>End Date</b> 9/10/96	<b>Boring ID</b> <b>SK-SB-72</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017935	100		Dark brown, fine SAND, some Silt, trace medium Sand, moist, loose, root fragments	0.1
	1017936	100		17": As above; 6": Black fine SAND, some Silt, moist, dense, organic odor	0.2
4	1017937	100		Olive grey fine SAND, little Clay, trace Silt, moist, dense	1.9
	1017938	100		Yellowish brown, fine to medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet at ≈ 7.0', loose	0.7
8				No recovery	
				No recovery	
12	1017944	50		Olive grey varved CLAY, trace Silt, wet, dense	0.1
	1017942	50		As above	0.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-72



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/10/96 <b>End Date:</b> 9/10/96		<b>Boring ID:</b> <b>SK-SB-73</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017943	100		Dark brown, fine SAND, with Silt, little medium Sand, moist, loose, root fragments	2.9
	1017944	100		18": Yellowish brown, fine SAND, little Silt, trace medium Sand, moist, loose; 5": Black, fine SAND and SILT, moist, dense, organics	98.0
4	1017945	100		Brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, moist, loose	0.3
	1017946	100		As above; wet at $\approx 7.0'$	7.6
8	1017947	100		As above	5.1
	1017948	100		As above	0.1
12	1017949	100		18": As above; 5": Olive grey, varved CLAY, trace Silt, wet, stiff	0.3
	1017950	100		As above	0.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No

SK-SB-73



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/10/96 <b>End Date:</b> 9/10/96		<b>Boring ID:</b> <b>SK-SB-74</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 2 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017951	100		Dark brown, fine SAND, with Silt, little medium Sand, moist, loose, root fragments	1.0
	1017952	100		Yellowish brown, fine SAND, some Silt, moist, loose	0.4
4	1017953	100		10": As above; 13": Brown, fine to medium SAND, some coarse Sand, trace Silt, moist, loose	36.0
	1017954	100		As above; wet at $\approx$ 7.0'	10.4
8				No recovery	
				No recovery	
12				No recovery	
				No recovery	
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-74



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/1/96 <b>End Date:</b> 9/1/96		<b>Boring ID:</b> <b>SK-SB-75</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017961	100		2": Asphalt; 6": Subbase; 15": Black/brown, fine SAND and SILT, moist, slightly stiff	125.0
	1017962	100		10": As above; 7": Black, fine SAND, some Silt, moist, slightly dense, organic odor; 6": Olive brown, fine SAND, little Silt, moist, slightly loose	225.0
4	1017963	100		6": As above; 17": Greenish grey, fine SAND and SILT, moist, stiff	500.0
	1017964	100		Light reddish brown, fine to medium SAND, little Silt, trace coarse Sand, wet at ≈ 7.0', loose	120.0
8	1017965 1017966	100		As above	225.0
	1017967	100		Strong brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	78.0
12	1017968	50		Olive grey, varved CLAY, little Silt, wet, stiff	1.2
	1017969	50		As above	1.3
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N  
K-SB-75



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/11/96 <b>End Date</b> 9/11/96		<b>Boring ID</b>  <b>SK-SB-76</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017970	100		2": Asphalt; 10": Subbase; 5": Dark brown/black fine Sand, little Silt, moist, loose; 6": Black, fine SAND and SILT, moist, dense, organic odor	0.9
	1017971	100		2": As above; 21": Olive brown, fine SAND, some Silt, moist, slightly dense	226.0
4	1017972	100		7": As above; 16": Light reddish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	22.0
	1017974	100		As above; wet at ≈ 2.0'	110.0
8	1017975	100		As above	47.0
	1017976	100		As above	47.0
12				No recovery	
				No recovery	
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-76



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

DRAFT

**Project:** VPSA  
**LEA Comm No:** 68TR678  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date:** 9/11/96  
**End Date:** 9/11/96

**Boring ID:**  
**SK-SB-77**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro core  
**Groundwater Observations:**  
**Depth:** NM      **At:**      **Hours**  $\frac{17}{24}$   
**Depth:**      **At:**      **Hours**  $\frac{17}{24}$

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Klapheke  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017977	100		Dark brown/black fine SAND and SILT, moist, slightly dense, organic odor	22.0
	1017980	100		Strong brown, fine SAND, little Silt, moist, loose	2.0
4	1017979	100		As above	4.7
	1017980	100		Light reddish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet at $\approx 7.0'$ , loose	8.3
8	1017981	50		As above; wet	3.6
	1017982	50		As above	12.0
12				No recovery	
				No recovery	
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N K-SB-77



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> VPSA <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/12/96 <b>End Date:</b> 9/12/96		<b>Boring ID:</b> <b>SK-SB-78</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> GP 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017989	100		Dark brown, fine to medium SAND, little Silt, trace(-) coarse Sand, moist, loose, root fragments	0.1
	1017990 1017991	100		Strong brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.1
4	1017992	100		As above	0.1
	1017993	100		Light reddish brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose, (wet at $\approx 7.0'$ )	1.0
8	1017994	50		As above	2.5
	1017995	50		Yellowish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	1.2
12	1017996	100		As above	0.4
	1017997	100		As above	0.1
16				Bottom of boring at 15.0'*	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \*Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'

Printed On: 6/16/1998

Boring No: SK-SB-78



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> CRYOGENICS <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/13/96 <b>End Date:</b> 9/13/96		<b>Boring ID:</b> <b>SK-SB-79</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018000	100		15": Dark brown, fine SAND and SILT, moist, loose, root fragments; 8": Strong brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0
	1018001	100		As above	0.0
4	1018002	50		As above	0.0
	1018003 1018004	50		15": As above; wet at $\approx 7.0'$ ; 8": Light reddish brown, fine SAND, little medium Sand, trace Silt, wet, loose	0.0
8	1018005	100		Light reddish brown, fine SAND, some medium Sand, trace(+) coarse Sand, trace(-) Silt, wet, loose	0.1
	1018006	100		Dark reddish brown, fine to medium SAND, little Silt, wet, loose	0.1
12	1018007	100		As above, Dark greyish brown, fine to medium SAND, some coarse, little Silt, wet, slightly dense	0.0
	1018008	100		As above	0.0
16				Bottom of boring at 15.0'*	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* Olive grey varved CLAY, trace Silt, wet, stiff found at  $\approx 15.5'$

Printed On: 1/23/1998

Boring No.

SK-SB-79



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> CRYOGENICS <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/13/96 <b>End Date</b> 9/13/96		<b>Boring ID</b> SK-SB-80	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018009	100		8": Dark brown, fine SAND and SILT, moist, loose, root fragments; 15": Strong brown, fine SAND, with medium Sand, trace Silt, moist, loose	0.0
	1018010	100		As above	0.0
4	1018011	100		As above	0.0
	1018012	100		Light reddish brown, fine SAND, some medium Sand, little coarse Sand, trace Silt, wet at ≈ 7.0', loose	0.0
8	1018013	50		As above	1.9
	1018014	50		Dark reddish brown, fine to medium SAND, some Silt, trace coarse Sand, wet, slightly dense	1.0
12	1018015	100		As above	0.0
	1018016	100		As above	0.0
16				Bottom of boring at 15.0'*	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. * Olive grey varved CLAY, trace Silt, wet, stiff found at ≈ 15.0'
---

Printed On: 1/23/1998

Boring No: SK-SB-80



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> CRYOGENICS <b>LEA Comm No:</b> 68TR678 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/13/96 <b>End Date</b> 9/13/96		<b>Boring ID</b> <b>SK-SB-81</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018017	100		10": Dark brown, fine SAND and SILT, moist, loose, root fragments; 13": Strong brown, fine SAND, with medium Sand, little Silt, moist, loose	0.0
	1018018	100		As above	0.0
4	1018019	50		As above	0.1
	1018020	50		10": As above; 13": Light reddish brown, fine to medium SAND, some Silt, little coarse Sand, wet at ≈ 2.0', slightly dense	0.1
8	1018021	50		As above	0.0
	1018022	50		As above	0.0
12	1018023	100		Dark reddish brown, fine to medium SAND, little Silt, wet, loose	0.0
	1018024	100		Bottom of boring at 15.0'*	0.0
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* Olive grey varved CLAY, trace Silt, wet, stiff found at ≈ 15.0'

Printed On: 1/23/1998

Boring N

K-SB-81





**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

## GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/19/96 <b>End Date</b> 9/19/96		<b>Boring ID</b> SK-SB-82	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b>  <b>Depth:</b> <b>At:</b> <b>Hours</b> 				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018388	100		Weak red, fine SAND, some medium Sand, little Silt, trace(+) coarse Sand, trace(-) fine Gravel, moist, dense	2.6
	1018389	100		3": Concrete layer; 20": Red, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, moist, dense	3.1
4	1018390 1018391	100		8": As above; 15": Reddish grey, fine SAND, little Silt, very moist, slightly dense	4.7
	1018392	100		Reddish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, slightly dense	3.5
8	1018393	100		Yellowish red, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, slightly dense	4.1
	1018394	100		Light brown, fine to medium SAND, trace Silt, wet, loose	3.4
12	1018395	100		Grey, fine to medium SAND, trace Silt, wet, loose	5.8
	1018396	100		Olive grey, varved CLAY, trace Silt, wet, stiff	7.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-82



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/20/96 <b>End Date:</b> 9/20/96		<b>Boring ID:</b> <b>SK-SB-83</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018415	25		Very dusky red, fine to medium SAND, some coarse Sand, little fine Gravel, trace coarse Gravel, moist, very dense, root fragments	2.5
	1018416	25		Red, fine to medium SAND, some coarse Sand, little fine gravel, trace coarse Gravel, moist, very dense	1.9
4	1018417	100		As above	3.3
	1018418 1018419	100		Reddish grey, medium SAND, some fine Sand, little coarse Sand, trace Silt, dense, wet $\approx$ 7.0' - 8.0'	3.2
8	1018420	100		As above	3.2
	1018421	100		Light yellowish brown, fine to medium SAND, little Silt, wet, slightly loose	3.3
12		0		No recovery	
		0		No recovery	
16				Bottom of boring at 15.0' *	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'

Printed On: 1/22/1998

Boring No

SK-SB-83



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/19/96 <b>End Date:</b> 9/19/96		<b>Boring ID:</b> <b>SK-SB-84</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018397	50		Dusky red, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, moist, dense	3.6
	1018398	50		As above	3.7
4	1018399	50		As above	3.8
	1018400	50		Pale red, fine SAND, little Silt, trace medium Sand, very moist, loose	5.1
8	1018401	50		Light yellowish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	3.8
	1018402	50		As above	2.7
12	1018403	100		Dark grey, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	3.1
	1018404	100		Olive grey, varved CLAY, trace Silt, wet, stiff	2.0
16				Bottom of boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring No: SK-SB-84



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Gas <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/19/96 <b>End Date:</b> 9/19/96		<b>Boring ID:</b> <b>SK-SB-85</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018405	50		Dusky red, fine to medium SAND, some coarse Sand, little fine Gravel, trace(+) Silt, trace(-) coarse Gravel, moist, dense	3.1
	1018406	50		As above	3.7
4	1018407	100		13": Yellowish brown, fine SAND, trace Silt, moist, loose; 10": Grey, fine SAND, trace Silt, moist, loose	2.1
	1018408	100		Pale red, fine SAND, some medium Sand, trace Silt, very moist, loose	2.9
8	1018409	25		Light brown, fine to medium Sand, some Silt, loose, wet	3.0
	1018410	25		As above	2.7
12	1018411	100		Dark grey, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	2.6
	1018412	100		As above *	1.7
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 \* Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'

Printed On: 1/22/1998

Boring N

K-SB-85



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/23/96 <b>End Date:</b> 9/23/96		<b>Boring ID:</b> <b>SK-SB-86</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018465	100		Brown, fine SAND, some Silt, moist, loose, root fragments	0.8
	1018466	100		Light yellow, fine SAND, trace Silt, moist, loose	0.8
4	1018467	100		As above	0.9
	1018468	100		Grey, medium to coarse SAND, little fine, trace Silt, wet at $\approx 7.0'$ , loose	320.0
8	1018469	100		As above	34.0
	1018470	100		Dark yellow, fine to medium SAND, some Silt, wet, loose	12.0
12	1018471	100		Olive grey, varved CLAY, trace Silt, wet, stiff	5.0
	1018472	100		As above	2.7
16				Bottom of boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring No: SK-SB-86



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone (203) 747-6181 FAX (203) 747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/23/96 <b>End Date:</b> 9/23/96		<b>Boring ID:</b> <b>SK-SB-87</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018457	100		Brown, medium SAND, some fine Sand, little Silt, moist, loose, root fragments	0.2
	1018458	100		Light brown, medium SAND, some fine Sand, trace Silt, moist, loose	1.2
4	1018459	100		As above	18.0
	1018460	100		Grey, fine to medium SAND, little coarse, trace Silt, wet at $\approx 7.0'$ , loose	1000+
8	1018461	100		As above	54.0
	1018462	100		Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	16.0
12	1018463	100		Olive grey, varved CLAY, trace Silt, wet, stiff	7.1
	1018464	100		As above	1.9
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

 Boring N  
K-SB-87


LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

# DRAFT

Project: Tie Down  
LEA Comm No: 68TR676  
Client: Pratt & Whitney  
Location: East Hartford, CT

Start Date  
9/23/96  
End Date  
9/23/96

Boring ID  
**SK-SB-88**

Drilling Contractor: LEA  
Drilling Method: Geoprobe  
Sampling Method: Macro core  
Groundwater Observations:  
Depth: NM At: Hours  
Depth: At: Hours

Logged By: L. Bianchi  
Drilling Foreman: J. Sweeton  
Drill Rig: Geoprobe 5400  
Surface Elevation:  
Northing:  
Easting:

Elevation/ Depth	Sample Information			Sample Description  Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1018448	100		Dark brown, medium SAND, some fine, trace Silt, moist, loose root fragments	0.0
	1018449	100		Light brown, medium SAND, some fine, trace Silt, moist, very loose	0.0
4	1018450 1018451	100		As above	0.4
	1018452	100		As above, wet at $\approx 7.0'$	1.0
8	1018453	100		As above	20.0
	1018454	100		Greyish brown, medium to coarse SAND, some fine Sand, wet, loose	12.0
12	1018455	100		Olive grey, varved CLAY, trace Silt, wet, stiff	2.1
	1018456	100		As above	1.0
16				Bottom of boring at 15.0'	
20					
24					

Comments: Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-88



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/20/96 <b>End Date</b> 9/20/96	<b>Boring ID</b> SK-SB-89
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018422	100		Dark brown, fine SAND, with medium Sand, some Silt, moist, loose, root fragment	1.7
	1018423	100		Light yellowish brown, fine to medium SAND, little Silt, moist, loose	2.8
4	1018424	100		As above	4.1
	1018425	100		Light yellowish brown, medium to coarse SAND, with fine Sand, trace Silt, wet, loose	5.7
8	1018426	50		Strong brown, fine SAND, with medium Sand, little coarse Sand, trace(+) Silt, wet, loose	4.9
	1018427	50		As above	5.6
12	1018428	100		Olive grey, varved CLAY, trace Silt, wet, stiff	4.1
	1018429	100		As above	3.7
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N K-SB-89



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/24/96 <b>End Date:</b> 9/24/96		<b>Boring ID:</b> <b>SK-SB-90</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018475	100		Dark brown, fine SAND, some Silt, moist, loose, root fragments	10.0
	1018476	100		Light yellow, fine to medium SAND, little Silt, moist, loose	1.2
4	1018477	100		12": As above; 11": Brown, medium SAND, some fine Sand, trace coarse, moist, loose	0.9
	1018478 1018479	50		As above	7.4
8	1018480	100		Olive brown, medium to coarse SAND, little fine Sand, trace Silt, wet, loose	44.0
	1018481	100		19": As above; 4": Olive grey, varved CLAY, trace Silt, wet, stiff	60.0
12	1018482	100		As above	7.3
	1018483	100		As above	4.0
16	Bottom of boring at 15.0'				
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-90



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 9/20/96 <b>End Date</b> 9/20/96	<b>Boring ID</b> <b>SK-SB-91</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018430	100		Dark brown, fine SAND, with medium Sand, some Silt, moist, loose, root fragments	85.7
	1018431	100		Light yellowish brown, fine to medium SAND, little Silt, moist, loose	7.1
4	1018432	100		As above	8.4
	1018433	100		Light yellowish brown, medium to coarse SAND, with fine Sand, trace Silt, wet at $\approx 7.5'$ , loose	5.2
8				No recovery	
	1018435	25		12": No recovery; 11": Olive grey, varved CLAY, trace Silt, wet, stiff	4.8
12	1018436	100		As above	2.1
	1018437	100		As above	1.7
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring ID: SK-SB-91



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tie Down <b>LEA Comm No:</b> 68TR676 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 9/20/96 <b>End Date:</b> 9/20/96		<b>Boring ID:</b> <b>SK-SB-92</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018438	100		Dark brown, fine SAND, with medium Sand, some Silt, moist, loose, root fragments	6.8
	1018439	100		Light yellowish brown, fine to medium SAND, little Silt, moist, loose	7.3
4	1018440	100		As above	5.1
	1018441	100		As above, wet	4.7
8	1018442	100		Light yellowish brown, medium to coarse SAND, with fine Sand, wet, loose	2.1
	1018443	100		10": Olive grey, varved CLAY, trace Silt, wet, stiff	3.4
12	1018444	100		As above	2.0
	1018445	100		As above	1.7
16				Bottom of boring at 15.0'	
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/22/1998

Boring No: SK-SB-92



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Storage Area 2 <b>LEA Comm No:</b> 68VC619 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 1/25/96 <b>End Date:</b> 10/25/96		<b>Boring ID:</b> <b>SK-SB-93</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020692	91		2": Asphalt; 5": Dark reddish brown, fine to medium SAND, some fine Gravel, little Silt, moist, compacted; 14": Reddish brown, fine to medium SAND, some Silt, little coarse Sand, moist, loose	0.2
	1020693	100		6": As Above; 14": Greenish grey, fine SAND and SILT, stiff, moist; 3": Strong brown, fine SAND, with Silt, some medium Sand, trace coarse Sand, very moist, loose (wet at ≈ 4.0')	0.0
	1020694			Bottom of Boring at 4.0'	
4					
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N  
K-SB-93



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Storage Area 2 <b>LEA Comm No:</b> 68VC619 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 10/25/96 <b>End Date</b> 10/25/96		<b>Boring ID</b> SK-SB-94	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1020695	91		2": Asphalt; 5": Strong brown, fine to medium SAND, some Silt, little fine Gravel, moist, compact; 14": Strong brown, fine to medium SAND, some Silt, moist, loose	0.0		
	1020696	100		As above, wet at $\approx$ 3.5-4.0'	0.0		
4				Bottom of boring at 4.0'			
8							
12							
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/23/1998

Boring No: SK-SB-94



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Storage Area 2  
**LEA Comm No:** 68VC619  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
 10/25/96  
**End Date**  
 10/25/96

**Boring ID**  
**SK-SB-95**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**   
**Depth:** **At:** **Hours**

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020697	91		2": Asphalt; 5": Strong brown, fine to medium SAND, some Silt, little fine Gravel, moist, compact; 14": Strong brown, fine to medium SAND, some Silt, little coarse Sand, moist, loose	0.0
	1020698	100		As above, wet at 3.5'-4.0'	0.0
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N  
 K-SB-95



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Storage Area 2 <b>LEA Comm No:</b> 68VC619 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 10/25/96 <b>End Date</b> 10/25/96		<b>Boring ID</b>  <b>SK-SB-96</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020699	100		2": Asphalt; 5": Strong brown, fine to medium SAND, some Silt, little fine Gravel, moist, compact; 16": Strong brown, fine to medium SAND, some Silt, little coarse Sand, moist, loose	0.2
	1020700	100		As above, wet at ≈ 3.5'-4.0'	0.0
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-96



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Storage Area 2 <b>LEA Comm No:</b> 68VC619 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 10/25/96 <b>End Date:</b> 10/25/96		<b>Boring ID:</b> <b>SK-SB-97</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020701	48		2": Asphalt; 4": Dark reddish brown, fine to medium SAND, some fine Gravel, little Silt, moist, compact; 5": Greenish grey, fine SAND and SILT, moist, stiff	0.0
	1020702	48		5" As Above; 6": Strong brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose	0.1
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No. SK-SB-97



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Storage Area 2 <b>LEA Comm No:</b> 68VC619 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 10/25/96 <b>End Date</b> 10/25/96		<b>Boring ID</b> SK-SB-98	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020703	48		2": Asphalt; 5": Dark reddish brown, fine to medium SAND, some fine Gravel, little Silt, moist, compact; 4": Yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, moist, loose	0.0
	1020704	48		7": Greenish grey, fine SAND and SILT, moist, stiff; 4": Brown, fine SAND, some Silt, trace medium Sand, wet, loose	0.2
4				Bottom of boring at 4.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-98



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/12/96 <b>End Date</b> 11/12/96		<b>Boring ID</b> SA-SB-99	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021134	100		2": Forest cover; 10": Black, fine SAND, little Silt, organic material, loose, moist, root fragments	0.0
	1021135	100		2": As Above; 10": Light greenish grey, fine SAND and SILT, moist, loose, mottled	0.0
				Bottom of Boring at 2.0'	
4					
8					
12					
16					
20					
24					

<b>Comments:</b> Auger hole backfilled upon completion.
---

Printed On: 6/17/1998

Boring No:

SB-99



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

**DRAFT**

**Boring ID**  
**SA-SB-100**

**Start Date**  
11/12/96  
**End Date**  
11/12/96

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Hand Auger  
**Surface Elevation:**  
**Northings:**  
**Easting:**

Printed On: 6/17/1998

LEA

**100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822**

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 11/12/96 <b>End Date:</b> 11/12/96	<b>Boring ID:</b> <b>SA-SB-101</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021138	100		2": Forest litter; 10" Strong brown, fine SAND, little Silt, moist, loose	0.0
	1021139	100		Light brown, fine SAND, little Silt, moist, loose	0.0
				Bottom of Boring at 2'	
4					
8					
12					
16					
20					
24					

**Comments:** Auger hole backfilled upon completion.



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 6/17/1998

Boring No:

-SB-101

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/12/96 <b>End Date</b> 11/12/96		<b>Boring ID</b> SA-SB-102	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1021140	100		Strong brown, fine SAND and SILT, moist, loose	3.0		
	1021141	100		5": As Above; 7": Light greyish brown, fine SAND, trace Silt, moist, loose	0.0		
				Bottom of Boring at 2.0'			
4							
8							
12							
16							
20							
24							
<b>Comments:</b> Auger hole backfilled upon completion.							



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 6/17/1998

Boring No: SA-SB-102



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/12/96 <b>End Date</b> 11/12/96		<b>Boring ID</b> SA-SB-103	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1021142 1021143	100 100		Light brown, fine SAND, little Silt, moist, loose As Above	0.0 0.0		
4				Bottom of Boring at 2.0'			
8							
12							
16							
20							
24							
<b>Comments:</b> Auger hole backfilled upon completion.							



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 6/17/1998

Boring No:

-SB-103

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/12/96 <b>End Date</b> 11/12/96		<b>Boring ID</b> SA-SB-104	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\nabla$ Depth:      At:      Hours $\nabla$				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021144	100		2": Forest litter; 5": Black, fine SAND and SILT, moist, loose, organic matter, root fragments; 5": Olive brown, fine SAND, with Silt, trace medium Sand, moist, loose  As Above  Bottom of Boring at 2.0'	0.0
	1021145				0.0
	1021146	100			
4					
8					
12					
16					
20					
24					

**Comments:** Auger hole backfilled upon completion.

Printed On: 6/17/1998

Boring No: SA-SB-104



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

## Page 1 of 1

**-SB-105**



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tank Trailer Storage Area <b>LEA Comm No:</b> 68VC610 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 11/12/96 <b>End Date</b> 11/12/96	<b>Boring ID</b> <b>SA-SB-106</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021107 1021108	100 100		2": Forest litter; 10": Black, fine SAND and SILT, moist, loose, root fragments, organic layer 3" Brown, fine SAND, with Silt, moist, loose; 9": Greenish grey, SILT and fine SAND, moist, loose Bottom of Boring at 2.0'	0.0 0.0
4					
8					
12					
16					
20					
24					

**Comments:** Auger hole backfilled upon completion.

Printed On: 6/17/1998

Boring No: SA-SB-106



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Tiedown Area  
**LEA Comm No:** 68V7033  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
 01/16/97  
**End Date**  
 01/16/97

**Boring ID**  
 SK-SB-107

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**  $\frac{1}{2}$   
**Depth:** **At:** **Hours**  $\frac{1}{2}$

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024987	63		Top 4": Pavement and Traprock; Next 4": Brown, fine to very fine SAND, trace(-) Gravel, moist, dense; 3": Orange brown, fine SAND, moist, loose; Bottom 3": Grey brown, fine SAND, trace very fine SAND, moist, dense	0
	1024988	63		Top 4": As Above; Bottom 11": Orange brown, fine SAND, trace medium Sand, moist, loose	0
4	1024989	63		Top 10": As Above; Bottom 5": Grey, fine SAND, little medium Sand, wet, loose	0
	1024990	63		As Above	7
8	1024991	75		Top 12": Orange brown-grey, fine SAND, little medium Sand, wet, loose; Bottom 6": Grey, CLAY, trace fine Sand, wet, dense	10
	1024992	75		As Above	10
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/22/1998

Boring No. SK-SB-107

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/16/97 <b>End Date</b> 01/16/97		<b>Boring ID</b> <b>SK-SB-108</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024993	63		Top 4": Blacktop & Traprock; Middle 6": Brown, fine to very fine SAND, trace(-) medium Sand, trace organics moist, dense; Bottom 5": Orange brown, fine to very fine SAND, trace(-) medium Sand, moist, dense	0
	1024994	63		Top 4": Grey, fine to very fine SAND, moist, dense; Bottom 11": Grey, fine SAND, trace(-) medium Sand, moist, loose	0.0
4	1024995	75		Top 14": As Above; Bottom 4": Orange brown, medium to fine SAND, moist, loose	0
	1024996	75		Top 2": As Above; Middle 3": Grey, fine SAND, trace(-) medium Sand, wet, moderately dense; Bottom 13": Grey, medium to fine SAND, wet, loose	10
8	1024997 1024998	63		As Above	80
	1024999	63		Top 10": As Above; Bottom 5": Grey, CLAY, trace(-) fine Sand, wet, dense	5
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-108



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Tiedown Area  
**LEA Comm No:** 68V7033  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
 01/16/97  
**End Date**  
 01/16/97

**Boring ID**  
**SK-SB-109**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**  
**Depth:** **At:** **Hours**

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)
	Sample No.	Recovery (%)	Blows /6"		
0	1025000	63		Top 4": Top Soil; Middle 4": Brown, fine to very fine SAND, trace(-) medium Sand, moist, dense; Bottom 7": Orange brown, fine to very fine SAND, trace medium Sand, moist, dense	0
	1025001	63		Grey brown, fine SAND, trace medium Sand, moist, loose, 1/2" Clay lense in bottom of sample	0
4	1025002	75		As Above	0
	1025003	75		Grey, fine SAND, wet, loose	5
8	1025004	75		As Above	40
	1025005	75		Top 10": As Above; Bottom 8": Grey, CLAY, trace(-) fine Sand, wet, dense	10
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

Printed On: 1/22/1998

Boring No.

SK-SB-109

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/20/97 <b>End Date</b> 01/20/97	<b>Boring ID</b> <b>SK-SB-110</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025010	75		Top 2": Topsoil; Middle 6": Grey brown, fine to medium SAND, trace organics, moist; Bottom 10": Orange brown, fine SAND, trace(-) medium Sand, moist, loose	0
	1025011	75		As Above	0
4	1025012	63		Alternating bands of grey-orange brown, fine SAND, trace medium Sand, moist, loose	5
	1025013 1025014	63		Top 4": As Above; Bottom 11": Grey, fine to medium SAND, wet, loose, petroleum odor	30
8	1025015	63		Top 6": Grey, fine SAND, wet, moderately dense, petroleum odor; Middle 2": Orange, fine SAND, wet, heavy iron staining, moderately dense; Bottom 7": Greenish grey, fine SAND, wet, loose	45
	1025016	63		Top 6": As Above, grading to medium to fine SAND; Middle 3": Grey, coarse to fine SAND, trace(-) fine Gravel, wet, loose; Bottom 6": Grey, CLAY, trace(-) fine to very fine Sand, wet, moist	40
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-110



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/20/97 <b>End Date</b> 01/20/97		<b>Boring ID</b> <b>SK-SB-111</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025017	83		Top 3": Topsoil; Bottom 17": Brown, fine SAND, trace organics, moist, loose	
	1025018	83		Orange brown, fine SAND, trace(-) medium Sand, moist, loose	
4	1025019	63		Top 10": Grey, fine SAND, moist, loose; Bottom 5": Light brown, fine SAND, trace(+) medium Sand, moist, loose	
	1025020	63		Top 4": As Above; Middle 7": Grey, fine SAND, wet, loose, petroleum odor; Bottom 4": Grey, fine SAND, trace(-) medium Sand, wet, petroleum odor	
8	1025021	75		Top 6": As Above, petroleum odor; Middle 2": Orange, fine SAND, heavy iron staining, wet, dense; Bottom 10": Greenish grey, fine SAND, wet, moderately dense	
	1025022	75		Top 16": As Above; Middle 1": Grey, coarse to fine Sand, trace fine Gravel, wet, loose; Bottom 1": Grey, CLAY, trace fine Sand, wet, dense	
12		100		As Above	
				Bottom of Boring at 13'	
16					
20					
24					

**Comments:** FID Malfunction. Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring ID: SK-SB-111



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 01/20/97 <b>End Date:</b> 01/20/97		<b>Boring ID:</b> <b>SK-SB-112</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025023	83		Top 2": Topsoil; Bottom 18": Brown, fine SAND, trace(-) medium Sand, trace organics, moist, moderately dense	
	1025024	83		Orange brown, fine SAND, trace(-) medium Sand, moist, loose	
4	1025025	63		Top 5": As Above; Bottom 10": Grey brown, fine SAND, trace medium Sand, moist, loose	
	1025026	63		Top 10": As Above; Bottom 5": Grey, medium to fine SAND, wet, loose, NO petroleum odor	
8	1025027	75		Top 8": As Above; Middle 3": Orange, fine SAND, heavy iron staining, wet, dense; Bottom 7": Greenish grey, fine SAND, wet, moderately dense	
	1025028	75		Top 14": As Above; Middle 1": Grey, coarse to fine SAND, trace fine Gravel, wet, loose; Bottom 2": Grey, CLAY, trace(+) fine Sand, wet, dense	
12				Bottom of Boring at 12'	
16					
20					
24					

<b>Comments:</b> FID Malfunction. Borehole backfilled with bentonite chips upon completion.
---

Printed On: 1/22/1998

Boring No: SK-SB-112



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**DRAFT**

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/20/97 <b>End Date</b> 01/20/97		<b>Boring ID</b> <b>SK-SB-113</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1025029	42		Top 6": Topsoil - large Cobbles; Bottom 4": Orange brown, fine SAND, large Cobbles in sample, Cobble lodged in tip			
				No Recovery			
4	1025031	63		Alternating bands of grey-orange brown, fine SAND, moist, loose			
	1025032	63		Grey, fine SAND, trace medium SAND, wet at Bottom 7", loose, slight petroleum odor on wet material			
8	1025033	75		Top 10": As Above; Middle 2": Orange, fine SAND, heavy iron staining, dense, wet; Bottom 6": Greenish grey, fine SAND, wet, dense			
	1025034	75		Top 12": As Above; Middle 3": Grey, coarse to fine SAND, trace(-) fine Gravel, wet, loose; Bottom 3": Grey, CLAY, trace(-) fine Sand, wet, dense			
12				Bottom of Boring at 12'			
16							
20							
24							
<b>Comments:</b> FID Malfunction. Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/22/1998

Boring N  
K-SB-113



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/21/97 <b>End Date</b> 01/21/97		<b>Boring ID</b> <b>SK-SB-114</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025037	63		Top 6": Topsoil; Middle 2": Light brown, medium to fine SAND, moist, loose; Bottom 7": Orange brown, fine SAND, trace organics, moist, moderately dense	0
	1025038	63		Orange brown, grading to grey, fine SAND, trace(-) medium Sand, moist, moderately dense	0
4	1025039	75		As Above (grey, fine SAND)	2
	1025040 1025041	75		Top 10": As Above; Bottom 8": Grey, fine to medium SAND, trace(+) medium Sand, wet, loose, petroleum odor	10
8	1025042	42		Top 7": As Above (no petroleum odor); Bottom 3": Greenish grey, fine SAND, little medium Sand, wet, loose	2
	1025043	42		Top 9": As Above, grading to orange brown; Bottom 1": Grey, CLAY, trace(-) fine Sand, wet, dense	2
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: SK-SB-114



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

DRAFT

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/21/97 <b>End Date</b> 01/21/97		<b>Boring ID</b> <b>SK-SB-115</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025044	75		Top 4": Topsoil; Middle 10": Brown, fine SAND, trace(-) medium Sand, trace organics, moist, dense; Bottom 4": Orange brown, fine SAND, moist, moderately dense	0
	1025045	75		As Above	0
4	1025046	75		Top 15": Grey, fine SAND, moist, moderately dense; Bottom 3": Grey, fine SAND, trace(+) medium Sand, moist	2.0
	1025047	75		As Above, wet in Bottom 8" of sample, high petroleum odor in wet portion	150.0
8	1025048	63		Top 7": As Above, visible product (clear, shiny) on soil; Bottom 8": Greenish grey, fine SAND, trace(-) medium Sand, wet, moderately dense	700.0
	1025049	63		Top 10": As Above; 1": Lens of orange, fine SAND, heavy iron staining; Middle 3": Greenish grey, fine SAND, trace(-) medium Sand, wet, moderately dense; Bottom 1": Grey, CLAY, trace(-) fine Sand, wet, dense	30.0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring N

K-SB-115



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Tiedown Area <b>LEA Comm No:</b> 68V7033 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 01/21/97 <b>End Date</b> 01/21/97		<b>Boring ID</b> SK-SB-116	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1025050	83		Top 6": Topsoil; Bottom 14": Brown, fine to very fine SAND, trace organics, moist, dense	0		
	1025051	83		Orange brown, fine SAND, trace organics, moist, dense	0		
4	1025052	75		Orange brown, fine to medium SAND, moist, loose	0		
	1025053	75		Top 10": As Above; Bottom 8": Grey, fine SAND, trace(-) medium Sand, wet, loose, slight petroleum odor	20		
8	1025054	83		Top 10": Grey, fine to medium SAND, wet, loose, petroleum odor; Bottom 10": Orange brown, fine SAND, trace(+) medium Sand, wet, NO petroleum odor	30		
	1025055	74		Top 15": As Above; Middle 2": Grey, coarse to fine SAND, wet, loose; Bottom 3": Grey, CLAY, trace fine Sand, wet, dense	0		
12				Bottom of Boring at 12.25'			
16							
20							
24							
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.							

Printed On: 1/22/1998

Boring No: SK-SB-116



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 1/30/97 <b>End Date:</b> 1/30/97		<b>Boring ID:</b> <b>SK-SB-117</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025906	83		Top 6": Topsoil, frozen; Bottom 14": Dark brown, grading to grey brown, fine SAND, trace(-) very fine Sand, trace organics, moist, moderately dense	0
	1025907 1025908	83		Top 10": Grey brown, fine SAND, moist, moderately dense; Bottom 10": Red brown, fine SAND, trace(-) medium Sand, moist, moderately dense	0
4	1025909	83		Top 12": Grey, fine SAND, wet, loose; Middle 2": Grey, coarse to fine SAND, wet, loose; Bottom 6": Greenish grey, fine SAND, trace(-) medium Sand, wet, loose	0
	1025910	83		Top 18": Greenish grey grading to grey brown, fine SAND, trace(-) medium Sand, wet, moderately dense; Bottom 2": Grey, coarse to fine SAND, wet, loose	0
8	1025911	83		Top 10": Grey, fine SAND, wet, loose; Bottom 10": Greenish grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	2
	1025912	83		Top 12": Greenish grey, fine SAND, trace(+) medium Sand, wet, loose; Middle 7": Orange brown, coarse to fine Sand, wet, heavy iron staining, loose; Bottom 1": Grey, CLAY, trace fine Sand, wet, dense	4
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No. K-SB-117



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

**Project:** Add. Invest. Fire Trning Area A  
**LEA Comm No:** 68V7037  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
1/30/97  
**End Date**  
1/30/97

**Boring ID**  
**SK-SB-118**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**   
**Depth:** **At:** **Hours**

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025913	92		Top 6": Top soil, frozen; Bottom 16": Dark brown, fine SAND, trace very fine Sand, trace organics, moist, moderately dense	0
	1025914	92		Top 8": Dark brown, fine SAND, trace very fine Sand, moist, moderately dense; Bottom 14": Grey brown, fine SAND, trace(-) medium Sand, moist, moderately dense	0
4	1025915	83		Top 15": As above; Bottom 5": Orange brown, medium SAND, trace fine Sand, moist, moderately dense	0
	1025916	83		Top 6": As above; Bottom 16": Grey brown, medium SAND, trace fine Sand, some coarse Sand, wet, loose	6.0
8	1025917	92		Top 8": As above; Bottom 14": Grey brown, fine SAND, some medium Sand, wet, loose	25.0
	1025918	92		Top 16": Orange brown, medium SAND, trace fine Sand, trace coarse Sand, wet, loose; Bottom 6": Grey, CLAY, trace Silt, wet, dense	11.0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-118



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 1/30/97 <b>End Date</b> 1/30/97		<b>Boring ID</b> SK-SB-119	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025919	88		Top 11": Brown, fine SAND, trace medium Sand, trace coarse Gravel, trace organic, frozen; Bottom 10": Brown, fine SAND, trace medium Sand, trace organic, moist, moderate density	0
	1025920	88		Top 8": Brown, medium SAND, trace fine Sand, trace coarse Sand, trace coarse Gravel, trace organic, moist, moderate density; Bottom 13": Dark brown, medium SAND, trace fine Sand, trace coarse Sand, trace coarse Gravel, moist, moderate density	0
4	1025921	58		Top 6": As above; Bottom 8": Blackish brown, fine SAND, some medium Sand, trace Silt, trace organic, pieces of wood, wet, moderately dense	205.0
	1025922	58		Top 8": As above; Bottom 6": Dark brown, medium SAND, trace fine Sand, trace Silt, wet, moderate density	> 1000
8	1025923	50		Orange brown, medium SAND, trace fine Sand, some coarse Sand, trace Gravel, wet, loose	0.5
	1025924	50		Brown, medium SAND, trace fine Sand, trace coarse Sand, wet, loose	10.0
12				Top 10": As above; Bottom 2": Grey, CLAY, trace Silt, wet, dense	
				Bottom of boring at 13'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring N  
SK-SB-119



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 1/31/97 <b>End Date</b> 1/31/97		<b>Boring ID</b> SK-SB-120	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025927	63		Top 10": Dark brown, fine to very fine SAND, trace(-) Silt, trace organics, moist, dense; Bottom 5": Grey brown, fine to very fine SAND, moist, moderately dense	0
	1025928 1025929	63		Top 8": As above; Middle 2": Orange brown, fine SAND, trace(-) very fine SAND, moist, loose; Bottom 5": Orange brown, fine SAND, wet, loose	0
4	1025930	75		Top 10": As above; Bottom 8": Grey brown, fine SAND, trace(-) very fine Sand, dense, wet	0
	1025931	75		Top 3": As above; Bottom 15": Greenish grey to grey, fine SAND, trace(+) medium Sand, wet, loose	2.0
8	1025932	67		As above	2.0
	1025933	80		Top 22": Grey to greenish grey, fine SAND, trace(+) medium Sand, wet, loose; Bottom 2": Grey, CLAY, trace(-) fine Sand, wet, dense	
12				Bottom of boring at 12.5'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-120



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 1/31/97 <b>End Date</b> 1/31/97		<b>Boring ID</b> SK-SB-121	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025934	75		Top 4": Topsoil; 2": Pavement; 4": Traprock; Bottom 8": Dark brown to grey brown, fine SAND, trace very fine Sand, moist, dense	0
	1025935	75		Top 10": As above; Bottom 8": Orange brown, fine SAND, trace(-) medium Sand, iron staining, wet, loose	0
4	1025936	63		Top 10": As above; Bottom 5": Greenish grey, fine SAND, wet, loose	0
	1025937	63		Top 10": As above; Bottom 5": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose	1.0
8	1025938	67		Top 6": Grey, fine SAND, wet, loose; Bottom 14": Grey, fine to medium SAND, wet, loose	0
	1025939	67		Top 6": Grey, fine SAND, trace(-) medium Sand, wet, loose; Middle 10": Grey, fine to medium SAND, wet, loose; Bottom 2": Dark grey, fine SAND, wet, loose	0
12				Top 2": Grey, CLAY, trace(-) fine SAND, wet, dense Bottom of boring at 12.5'	0
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring N

SK-SB-121





LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 1/31/97 <b>End Date</b> 1/31/97		<b>Boring ID</b> SK-SB-122	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b>  <b>Depth:</b> <b>At:</b> <b>Hours</b> 				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025940	92		Top 6": Process stone, frozen; Bottom 16": Dark reddish brown, fine SAND, trace medium Sand, trace Silt, trace organic, moist, moderately dense	0.0
	1025941	92		Dark brown, fine SAND, trace medium Sand, trace Silt, moist, moderate density	0.0
4	1025942	96		Top 18": Orange brown, fine SAND, some medium Sand, trace Silt, moist, moderate density; Bottom 5": Grey brown, medium SAND, some fine Sand, trace coarse Sand, wet, moderate density	0.0
	1025943	96		Grey brown, medium SAND, some coarse Sand, trace fine Sand, wet, loose	0.0
8	1025944	88		Top 12": Orange brown, medium SAND, some coarse Sand, trace fine Sand, wet, loose; Bottom 9": Orange brown, medium SAND, some fine Sand, trace coarse Sand, wet, loose	0.0
	1025945	88		Top 15": Grey brown, medium SAND, trace fine Sand, trace coarse Sand, wet, loose; Bottom 6": Grey, CLAY, trace fine Sand, trace Silt	0.0
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-122



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 02/03/97 <b>End Date</b> 02/03/97		<b>Boring ID</b> SK-SB-123	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1205948 1025949	63		Top 8": Orange brown, medium to fine SAND, frozen; Middle 6" : Dark brown to grey brown, fine SAND, trace(+) very fine Sand, trace traprock, moist, trace organics, dense; Bottom 1": Grey, fine SAND, trace organics, moderately dense	0.5
	1025950	63		As above	0
4	1025951	75		Top 4": As above; Middle 10": Grey, fine SAND, with bands of orange brown, fine Sand, wet, moderately dense; Bottom 4": Grey, fine SAND, trace medium Sand, wet, loose	0
	1025952	75		Grey to orange brown, fine SAND, trace(+) medium Sand, wet, loose	10
8	1025953	67		Top 6": Grey, coarse to fine SAND, wet, loose; Middle 4": Grey, fine SAND, wet, loose; Bottom 10": Grey, fine SAND, trace(+) medium Sand, wet, loose	10
	1025954	67		Top 4": As above; 10": Greenish grey, fine SAND, trace(-) medium Sand, wet, loose; 5": Orange brown, coarse to fine SAND, heavy iron staining, wet, loose; Bottom 1": Grey, CLAY, trace(-) fine Sand, wet, dense	0
12		100		As above bottom 1"	
				Bottom of boring at 12.5'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring N

K-SB-123



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive. Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 2/3/97 <b>End Date:</b> 2/3/97		<b>Boring ID:</b> <b>SK-SB-124</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\square}{\square}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\square}{\square}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows / 6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025955	58		Top 6": Dark brown, medium SAND, some fine Sand, some coarse Gravel, frozen; Bottom 8": Red brown, medium SAND, some fine Sand, trace coarse Gravel, moist, moderately dense	0
	1025956	58		Top 6": Red brown, medium SAND, some fine Sand, trace coarse Sand, moist, moderately dense; Bottom 8": Brown, fine SAND, trace medium Sand, moist, moderately dense	0
4	1025957	92		Top 12": Brown, medium SAND, some fine Sand, moist, moderate density; Bottom 10": Brown, fine SAND, some medium Sand, moist, moderate density	0
	1025958	92		Brown, medium SAND, trace fine Sand, wet, moderate density	10
8	1025959	92		Top 11": Brown, medium SAND, trace fine Sand, trace coarse Sand, wet, loose; Bottom 11": Brown, medium SAND, some coarse Sand, trace fine Sand, wet, loose	5
	1025960	92		Top 18": Red brown, medium SAND, some coarse Sand, trace fine Sand, wet, loose; Bottom 4": Grey, CLAY, trace Silt, wet, moderately dense	0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-124



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 2/3/97 <b>End Date:</b> 2/3/97		<b>Boring ID:</b> <b>SK-SB-125</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025961	42		Top 6": Brown, fine to medium SAND, traprock in top 6", frozen, dense; Middle 2": Brown, fine to very fine SAND, trace medium Sand, frozen, dense; Bottom 2": Grey brown, fine SAND, trace organics, moist, loose	
	1025962	42		As above	
4	1025963	63		Top 10": Grey brown, fine SAND, moist to wet, dense; Bottom 5": Grey, medium to fine SAND, wet, loose	
	1025964	63		Top 5": As above; Bottom 10": Greenish grey, fine SAND, wet, loose	
8	1025965	83		Grey, fine SAND, little medium Sand, wet, loose	
	1025966	83		Top 6": Greenish grey, fine to medium SAND, wet, loose; Middle 10": Orange brown, medium to fine SAND, trace coarse Sand, wet, loose; Bottom 4": Grey, CLAY, trace fine Sand, wet, dense	
12				Bottom of boring at 12'	
16					
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On 1/21/1998

Boring N  
K-SB-125



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 2/4/97 <b>End Date:</b> 2/4/97		<b>Boring ID:</b> <b>SK-SB-126</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 2 <b>Depth:</b> <b>At:</b> <b>Hours:</b> 3				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025969	42		Top 3": Pavement; Middle 4": Brown, medium to fine SAND, traprock in sample, frozen; Bottom 3": Dark brown, fine SAND, trace very fine Sand, moist, dense	0
	1025970 1025971	42		As above	0
4	1025972	75		Top 5": Orange, brown, fine SAND, trace(-) medium Sand, moist, loose; Middle 10": Grey, fine SAND, alternating bands of grey and orange brown, very fine Sand, 1/4" wide, wet, moderately dense; Bottom 3": Greenish grey, fine SAND, wet, moderately dense	6
	1025973	75		Top 10": As above; Middle 3": Grey, medium to fine SAND, wet, loose; Bottom 5": Grey, fine SAND, wet, loose	20
8	1025974	72		Orange brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	0
	1025975	72		Top 17": Greenish grey, fine SAND, trace(-) medium Sand, wet, loose; Bottom 1": Grey, CLAY, trace(-) fine Sand	0
12		50		As above	
				Bottom of boring at 12.5'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-126



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822



# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 2/4/97 <b>End Date:</b> 2/4/97		<b>Boring ID:</b> <b>SK-SB-127</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> 7 <b>Depth:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025976	63		Top 3": Pavement; Middle 5": Traprock and brown, medium to fine SAND, frozen; Bottom 7": Dark brown, fine to very fine SAND, moist, dense	0
	1025977	63		Orange brown, fine SAND, trace(-) very fine Sand, moist, moderately dense	0
4	1025978	83		Top 15": Grey, fine SAND, moist, moderately dense; Bottom 5": Grey, fine to medium SAND, wet, loose, slight petroleum odor	70
	1025979	83		As above (slight petroleum odor)	400
8	1025980	83		Top 15": Grey to orange brown, medium to fine SAND, trace(-) coarse Sand, wet, loose; Bottom 5": Greenish grey, fine SAND, wet, moderately dense	0
	1025981	83		Top 10": As above; Middle 6": Alternating bands of grey and orange brown, fine to medium SAND, trace(-) coarse Sand, wet, dense; Bottom 4": Grey, CLAY, trace(-) fine SAND, wet, dense	0
12				Bottom of boring at 12'	
16					
20					
24					

<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.
--

Printed On: 1/21/1998

Boring No. SK-SB-127



LOUREIRO ENGINEERING ASSOCIATES, PC  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 2/4/97 <b>End Date</b> 2/4/97		<b>Boring ID</b> <b>SK-SB-128</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025982	42		Top 2": Pavement; 2": Red brown, fine SAND, trace organics, frozen; 4": Dark brown, fine to very fine SAND, trace(-) Silt, moist, dense; Bottom 2": Grey brown, fine SAND, trace(-) very fine Sand, moist, dense	0
	1025983	42		As above	0
4	1025984	75		Top 4": Red brown, fine SAND, wet, loose; Bottom 14": Alternating bands of grey and orange brown, fine SAND, wet, moderately dense	0
	1025985	75		Grey to orange brown, fine to medium SAND; trace(-) coarse Sand, wet, loose	50
8	1025986	100		Top 6": Grey, fine SAND, little medium Sand, wet, loose; Bottom 18": Orange brown (iron staining), fine to medium SAND, trace(-) coarse Sand, wet, loose	0
	1025987	100		Top 20": Grey, fine SAND, trace(+) medium Sand, wet, loose; Middle 2": Grey, coarse to fine SAND, wet, loose; Bottom 2": Grey, CLAY, trace fine Sand, wet, dense	0
12				Bottom of boring at 12.2'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: SK-SB-128



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Add. Invest. Fire Trning Area A <b>LEA Comm No:</b> 68V7037 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 2/4/97 <b>End Date</b> 2/4/97		<b>Boring ID</b> SK-SB-129	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{7}{4}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{7}{4}$				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025988	83		Top 2": Pavement; Middle 4": Grey brown, fine to medium SAND, frozen; Bottom 14": Red brown, medium to fine SAND, some coarse Sand and Gravel, moist, loose	0
	1025989	83		Grey, fine SAND, trace(-) medium Sand, moist, loose	0
4	1025990	76		Top 10": Grey, fine SAND, moist, loose; Bottom 8": Orange, brown to grey, fine SAND, trace(+) medium Sand, moist to wet	0
	1025991	76		Orange brown, fine to medium SAND, wet, loose	1.0
8	1025992	83		Top 5": Orange brown, fine SAND, wet, loose; Bottom 15": Grey, fine SAND, trace(+) medium Sand, wet, loose	0
	1025993	83		Top 10": As above; Middle 9": Greenish grey, fine SAND, wet, loose; Bottom 1": Grey, CLAY, trace(-) fine Sand	0
12				Bottom of boring at 12.3'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No. K-SB-129



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Klondike Debris Pile <b>LEA Comm No:</b> 68V7038 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 2/6/97 <b>End Date:</b> 2/6/97		<b>Boring ID</b> <b>SK-SB-130</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>At:</b> <b>Hours:</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026209	83		Orange brown, fine SAND, trace(+) very fine SAND, moist, moderately dense	
	1026210	83		Top 18": As above; Bottom 2": Red brown, fine SAND, moist, loose	
4	1026211	83		Orange brown, fine SAND, trace(+) medium Sand, wet on bottom 1"	
	1026212	83		Top 18": Gray to red brown, fine SAND, some very fine Sand, wet, moderately dense; Bottom 2": Orange brown, fine SAND, wet, loose	
8	1026213	83		Top 15": Gray brown, fine SAND, trace(+) very fine Sand, wet, moderately dense; Bottom 5": Orange brown to gray brown, fine SAND, wet, loose	
	1026214	83		As above	
12	1026215	42		Gray, coarse to fine SAND, wet, loose	
		0		No recovery	
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: SK-SB-130



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> South Klondike Debris Pile <b>LEA Comm No:</b> 68V7038 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 2/6/97 <b>End Date</b> 2/6/97	<b>Boring ID</b> <b>SK-SB-131</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>				<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026216 1026217	83		Orange brown, fine to very fine SAND, trace Silt, moist, moderately dense	
	1026218	83		Orange brown to red brown, medium to fine SAND, trace coarse Sand, moist, loose	
4	1026219	83		Top 10": As above, Bottom 10": Red brown to orange brown, fine to very fine SAND, moist to wet	
	1026220	83		Top 16": As above bottom 10"; Bottom 4": Orange brown, fine SAND, little medium Sand, wet, loose	
8	1026221	83		Orange brown to red brown, fine SAND, little very fine Sand, wet, moderately dense	
	1026222	83		As above	
12	1026223	83		Gray brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	
	1026224	83		As above	
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No

SK-SB-131



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Area Add. Inv. UST <b>LEA Comm No:</b> 68V7054 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date</b> 03/26/97 <b>End Date</b> 03/26/97		<b>Boring ID</b> <b>SK-SB-138</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1630860	75		Top 6": Brown, fine SAND, trace organic matter, trace fine to coarse Gravel (process stone), dry, loose; Bottom 12": Reddish brown, medium to fine SAND, little coarse Sand, trace fine Gravel, dry, loose	
	1630861			Same as above last 12": moist at 16", Granite Cobble at 3"	
4	1630862	83		Top 5": Grey, very fine to fine SAND, moist, loose; Bottom 15": Greyish brown, fine to very fine SAND grading to fine SAND, wet, loose, wet at 8"	
	1630863 1630864			Greyish brown, fine to medium SAND, wet, loose	
8	1630865	67		Yellowish brown, fine to medium SAND, wet, loose	
	1630866			Top 6": Olive grey, fine to medium SAND, wet, loose; Bottom 10": Olive grey, fine SAND, wet, loose	
12	1630867	75		Olive grey, fine to medium SAND, wet, loose	
	1630868			Top 9": Yellowish brown to grey, medium SAND, trace coarse Sand, wet, loose; Bottom 9": Grey, varved CLAY, wet, loose	
16				Bottom of Boring at 16'	
20					
24					

<b>Comments:</b> Boring backfilled with bentonite chips
---

Printed On: 2/9/1998

Boring No: SK-SB-138



**LOUREIRO ENGINEERING ASSOCIATES, PC**  
 100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

Page 1 of 1

<b>Project:</b> Linde Area Add. Inv. UST <b>LEA Comm No:</b> 68V7054 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT				<b>Start Date:</b> 03/26/97 <b>End Date:</b> 03/26/97		<b>Boring ID:</b> <b>SK-SB-139</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1630869	79		Top 5": Dark brown, fine SAND, trace Silt, trace organic matter, moist, loose; Bottom 14": Reddish brown, medium to fine SAND, trace coarse Sand, trace fine Gravel, dry, loose, Cobble at bottom	
	1630870			Top 8": Same as above last 14", dense; Middle 4": Greyish brown, fine SAND, moist, dense; Bottom 7": Same as top 8": dense	
4	1630871	88		Top 10": Greyish brown, fine to very fine SAND, wet, loose; Bottom 11": Greyish brown, fine SAND, wet, loose, wet at top	
	1630872			Greyish brown, fine to medium SAND, wet, loose	
8	1630873	71		Olive grey, fine to medium SAND, wet, loose	
	1630874			Top 8": As Above; Bottom 9": Olive grey, fine SAND, wet, loose	
12	1630875	83		Olive grey, fine SAND, little medium Sand, wet, loose	
	1630876			Grey, varved CLAY, wet, loose	
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Boring backfilled with bentonite chips

Printed On: 2/9/1998

Boring No

SK-SB-139



LOUREIRO ENGINEERING ASSOCIATES, PC

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822